

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



April 7, 2011

Gabriel Linares P.E., C.B.O., Building & Safety Manager
Community Development Department
City of Brea
1 Civic Center Circle
Brea, CA 92821-5732

Dear Ms. Linares:

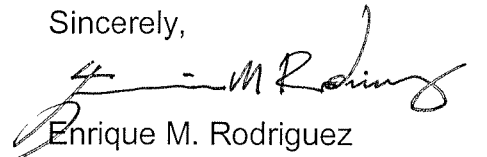
This letter is to acknowledge receipt on January 31, 2011, of the City of Brea submittal pertaining to Ordinance Nos. 1146 and 1147 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code Section 17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,


Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings



City of Brea

January 24, 2011

California Building Standards Commission
2525 Natomas Park Dr., Suite 130
Sacramento, California 95833-2936

RE: City of Brea, Building Adoption Ordinance

Mr. Dave Walls:

The City of Brea has adopted the current Fire Code of the State of California.

The City of Brea has recommended changes and modifications to the Code and have advised that certain said changes and modifications to the 2010 Editions of the California Fire Code are reasonably necessary due to local conditions in the City of Brea and have further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Code or are reasonably necessary to safeguard life and property within the City of Brea.

The enclosed City Ordinance no 1147 is for your files.

If additional information is desired please telephone this office at (714) 990-7654.

Sincerely,

Dana Kemper
Fire Marshal
Brea Fire Department

Attachment: Ordinance 10-1147

RECEIVED
CITY OF BREA
JAN 25 2011
FIRE DEPARTMENT

City Council

Roy Moore
Mayor

Don Schweitzer
Mayor Pro Tem

Ron Garcia
Council Member

Brett Murdock
Council Member

Marty Simonoff
Council Member

ORDINANCE NO. 1147

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BREA ADOPTING BY REFERENCE THE 2010 EDITION OF THE CALIFORNIA FIRE CODE, INCLUDING APPENDICES CHAPTER 4, A, B, F AND H AND EXCLUDING APPENDICES C, D, E, G, I AND J, TOGETHER WITH CERTAIN AMENDMENTS, ADDITIONS, DELETIONS AND EXCEPTIONS, INCLUDING FEES AND PENALTIES AND AMENDING TITLE 16 OF THE BREA CITY CODE

A. RECITALS:

(i) Government Code Section 50020, et seq., authorizes the adoption, by reference, of the 2010 California Fire Code.

(ii) At least one (1) copy of the Code adopted herein by reference, certified as a full, true and correct copy thereof by the City Clerk of the City of Brea, has been filed in the office of the City Clerk in accordance with the provisions of California Government Code Section 50022.6.

(iii) A duly noticed public hearing, as required by California Government Code Section 50022.3, has been conducted and was concluded prior to the adoption of this Ordinance.

(iv) All legal prerequisites to the adoption of this Ordinance have occurred.

B. ORDINANCE:

NOW, THEREFORE, be it found, determined and resolved by the City Council of the City of Brea does hereby find, determine and ordain as follows:

SECTION 1.

In all respects, as set forth in the Recitals, Part A, of this Ordinance.

SECTION 2.

Chapter 16.04 of Title 16 of the Brea City Code is hereby repealed; provided, however that said repeal shall not apply to or excuse any violation thereof occurring prior to the effective date of this Ordinance and provided further that the 2007 California Fire Code, as adopted by reference by the City of Brea, shall continue to be applicable to construction wherein plans have been submitted for plan check prior to the effective date of this Ordinance, so long as the initial permit therefore is issued no later than ninety (90) days after such effective date.

SECTION 3.

A new Chapter 16.04 hereby is added to Title 16 of the Brea City Code to read as follows:

“CHAPTER 16.04: FIRE PREVENTION CODE

Sections

16.04.010	Fire Code Adopted
16.04.020	Enforcement and Inspections
16.04.030	Chapter 1 Amendments
16.04.040	Chapter 2 Amendments
16.04.050	Chapter 3 Amendments
16.04.060	Chapter 4 Amendments
16.04.070	Chapter 5 Amendments
16.04.080	Chapter 6 Amendments
16.04.090	Chapter 7 Amendments
16.04.100	Chapter 9 Amendments
16.04.110	Chapter 11 Amendments
16.04.120	Chapter 14 Amendments
16.04.130	Chapter 19 Amendments
16.04.140	Chapter 23 Amendments
16.04.150	Chapter 33 Amendments
16.04.160	Chapter 37 Amendments
16.04.170	Chapter 47 Amendments
16.04.180	Chapter 49 Amendments
16.04.190	Appendix B amendments
16.04.200	Fees

§16.04.010 FIRE CODE ADOPTED.

The 2010 Edition of the California Fire Code including Appendices Chapter 4, A, B, F and H, and Excluding Appendices C, D, E, G, I, and J, together with the following amendments, additions, deletions and exceptions, are hereby adopted by reference as the Fire Prevention Code of the City of Brea.

§16.04.020 ENFORCEMENT AND INSPECTIONS.

The California Fire Code, with amendments, shall be enforced by the Brea Fire Department. The Fire Chief of the Brea Fire Department may detail such members of the fire department as inspectors as shall be necessary from time to time.

§16.04.030 CHAPTER 1 AMENDMENTS.

Section 101.1 Title is hereby revised as follows:

Section 101.1 Title. This Code shall be known as the Brea Fire Code, hereinafter referred to as 'this Code.'

Section 104.2 Applications and permits is hereby revised as follows:

104.2 Authority to inspect. The Fire Department shall inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the Chief for the purposes of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, result in an unauthorized discharge of hazardous materials, or any violation of this Code or any other law or standard affecting fire and life safety.

Section 105.6.15 Fire hydrants and valves is hereby deleted in its entirety.

Section 105.6.19 Fumigation and thermal insecticidal fogging is hereby deleted in its entirety.

Section 105.6.47 Additional permits is hereby amended by adding the following:

Cut Christmas trees. No person shall sell, display or store for resale, in the City of Brea, any cut Christmas tree, unless a permit therefore has been issued by the Chief.

Oil and natural gas wells. To drill, own, operate, or maintain an oil or natural gas well.

Potentially Hazardous General Use. To conduct an activity or operation that is not specifically addressed by other permits, but which is likely to produce conditions hazardous to life or property.

Recreational fires. To conduct a recreational fire, as defined in Section 307.

Rifle range. To establish, maintain, or operate a rifle range.

Residential based care facilities. Including, but not limited to, care for the elderly, care for the developmentally disabled, and half-way homes shall be regulated under this section and a permit issued by the Fire Department to each business engaging in these operations.

Section 105.8 Responsibility of the permittee is hereby added as follows:

105.8 Responsibility of permittee. Building permits shall be presumed to incorporate the provision that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and will all requirements of this code and any other laws or regulations applicable thereto, whether specified or not. No approval shall relieve or exonerate any person from the responsibility of complying with the provisions and intent of this code.

Section 107.6.1 Occupant count is hereby added as follows:

107.6.1 Occupant count. The supervisor of each place of assembly shall have an effective system to keep count of the number of occupants present in the assembly area. If the Chief determines at any time that an accurate count of occupants is not being maintained, the occupancy shall be cleared until an accurate count can be made.

Section 109.3 Violation penalties is hereby deleted in its entirety.

Section 111.4 Failure to comply is hereby revised as follows:

111.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be in violation of this code.

§16.04.040 CHAPTER 2 AMENDMENTS

Section 202 GENERAL DEFINITIONS is hereby amended by adding the following definitions:

FLOW-LINE. The lowest continuous elevation on a rolled curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

HAZARDOUS FIRE AREA. All areas identified within Section 4906.2 and other areas as determined by the fire code official do to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

HIGH RISE BUILDING. Paragraph 2 is hereby deleted and replaced by the following language: 'High Rise Structure' shall have that meaning as set forth in the Brea Building Code.

JURISDICTIONAL AREA. Any area under the jurisdiction, including the territorial area, of the City of Brea, including all areas annexed thereto after adoption of this Code.

RIFLE RANGE. Any indoor or outdoor firing shooting or target range established, maintained or operated for the discharge of a rifle, pistol, revolver, shotgun or firearm.

VEHICLE FUELING APPLIANCE. A listed natural gas compressor package not containing storage, designed for the unattended dispensing of natural gas into the fuel tanks of motor vehicles.

§16.04.050 CHAPTER 3 AMENDMENTS.

Section 304.1.2 (7) (E) is hereby added as follows:

(E) Brea Vegetation Management Guidelines.

Section 305.5 Spark arresters is hereby added as follows:

305.5 Spark arresters. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrestor, the spark arrester shall meet all of the following requirements:

1. The net free area of the spark arrester shall not be less than four times the net area of the outlet of the chimney.
2. The spark arrester screen shall have heat or corrosion residence equivalent to 12 gage steel wire, 19 gage galvanized wire or 24 gage stainless steel.
3. Openings shall not permit the passage of spheres having a diameter larger than ½ inch and shall not block the passage of spheres having a diameter of less than 3/8 inch.
4. The spark arrester shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.

Section 307.1.1 Prohibited open burning is hereby revised as follows:

307.1.1 Prohibited open burning. Open burning in fire hazard zones shall be prohibited.

Section 307.1.2 Recreational fires is hereby added as follows:

307.1.2 Recreational fires. Recreational fires that are offensive or objectionable because of smoke or odor emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

Section 307.3 Extinguishment authority is hereby revised as follows:

307.3 Extinguishment authority. The fire code official is authorized to order the extinguishment by the permit holder, another person responsible or the Fire Department of open burning or recreational fire that creates or adds to a hazardous or objectionable situation.

Section 307.6 Incinerators and fireplaces is hereby added as follows:

307.6 Incinerators and fireplaces. Incinerators, outdoor fireplaces, permanent barbecues and grills shall not be built, installed or maintained in hazardous fire areas without prior approval of the Chief. Incinerators, outdoor fireplaces, permanent barbecues and grills shall be maintained in good repair and in a safe condition at all times. Openings in such appliances shall be provided with an approved spark arrester, screen or door.

Section 308.1.6 Open flame devices is hereby revised as follows

308.1.6 Open flame devices. Welding torches, tar pots, decorative torches and other devices, machines or processes liable to start or cause fire shall not be operated or used in or upon hazardous fire areas, except by permit from the Chief or if used within habited premises

Section 308.1.6.1 Signals and markers is hereby revised as follows:

308.1.6.1 Signals and markers. Flame-employing devices, such as lanterns or kerosene road flares, shall not be operated or used as a signal or marker in or upon hazardous fire areas.

Exception: The proper use of fuses at the scenes of emergency or as required by standard railroad operating procedures.

Section 318 Christmas tree retail sales is hereby added as follows:

SECTION 318

CHRISTMAS RETAIL SALES

No permit to sell, display or store for resale, any cut Christmas trees within the City of Brea shall be issued, except for same calendar year and unless an application therefore is filed with and approved by the Chief. The applicant for such permit shall show that the proposed location and methods of sales, display or storage pertaining to such activity shall not constitute a fire hazard or violation of any law. The applicant, if other than an established business operation on a year-round basis, shall make a cash deposit, in such amount as established by resolution of the City Council, with the City Treasurer to guarantee cleanup of the premises. The applicant shall agree in said application that if, not later than the 10th day of January following the issuance of such permit, all unsold trees, waste, refuse, combustible wastes and accumulations of sawdust are not removed from the place where such trees are sold, displayed or stored, the same may be removed and disposed of by the City. The City may apply said cash deposit in payment of all its costs, including its reasonable overhead expenses of thirty percent (30%) in connection with such removal. The Chief shall cause any of such items remaining after January 10 of each year to be removed as soon thereafter as practicable, and shall report the cost thereof to

the City Treasurer. The City Treasurer shall apply so much of said deposit and the payment of such costs and overhead expenses as is necessary, and shall return to the applicant any amount of such deposit in excess thereof and the applicant shall reimburse the City for any costs, including overhead costs, in excess of said deposit. The Chief shall report, in writing, to the City Treasurer as soon as possible after January 10 of each year, the names of all permittees who have removed such items and the City Treasurer shall return the cleanup deposit to such applicant as soon thereafter as is practical. Nothing herein shall excuse any applicant from complying with any other rule or regulation, or from obtaining any required license or permits of the City including, but not limited to a City business license.

Section 319 Projectile Firing is hereby added as follows:

SECTION 319

PROJECTILE FIRING

No person shall, in any brush or grass-covered area or area covered with flammable material, possess or fire or cause to be fired any tracer bullets, tracer charge, flammable propellant model rockets or any type of projectile that discharged smoldering or flammable material. Nothing in this section shall apply to any law enforcement acting in the course of such officer's duties other than target practice.

Section 320 Development on or near land containing or emitting toxic, combustible or flammable gasses or vapors is hereby added as follows:

SECTION 320

DEVELOPMENT ON OR NEAR LAND CONTAINING OR EMITTING TOXIC, COMBUSTIBLE OR FLAMMABLE GASSES OR VAPORS

All projects will be required to conform to the current adopted 'City of Brea Combustible Soil-Gas Guideline'.

Section 321 Fuel modification requirements for new construction is hereby added as follows:

SECTION 321

FUEL MODIFICATION REQUIREMENTS FOR NEW CONSTRUCTION.

All new buildings to be built or installed in areas containing combustible vegetation shall comply with the following:

1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official concurrent with the submittal for approval of any tentative map.

2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.

3. The fuel modification plans shall meet the criteria set forth in the Brea Fire Department Fuel Modification Guideline.

4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval by the fire code official.

5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

Section 322 Clearance of brush or vegetation growth from roadways is hereby added as follows:

SECTION 322

CLEARANCE OF BRUSH OR VEGETATION GROWTH FROM ROADWAYS

The fire code official is authorized to cause areas within 10 feet (3048 mm) on each side of portions of highways and private streets which are improved, designed or ordinarily used for vehicular traffic, to be cleared of flammable vegetation and other combustible growth. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces .

Exception: Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, ivy, succulents or similar plants used as ground covers, provided that they do not form a means of readily transmitting fire.

Section 323 Unusual circumstances is hereby added as follows:

SECTION 323

UNUSUAL CIRCUMSTANCES.

The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that in any specific case that any of the following conditions exist:

1. Difficult terrain.
2. Danger of erosion.
3. Presence of plants included in any state and federal resources agencies, California Native Plant Society and county-approved list of wildlife, plants, rare, endangered and/or threatened species.
4. Stands or groves of trees or heritage trees.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

Section 324 Use of equipment is hereby added as follows:

SECTION 324

USE OF EQUIPMENT

Except as otherwise provided in this section, no person shall use, operate, or cause to be operated, in, upon or adjoining any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a spark arrester as defined in Section 322.1 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exception:

1. Engines used to provide motor power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code of the State of California.
2. Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in good mechanical condition

Section 324.1 Spark arrestors is hereby added as follows:

324.1 Spark arrestors. Spark arrestors shall comply with the following:

1. A spark arrester is a device constructed of nonflammable material specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch (0.58 mm) in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.

2. Spark arresters affixed to the exhaust system of engines or vehicles subject to Section 322 shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.

Section 325 Restricted Entry is hereby added as follows:

SECTION 325

RESTRICTED ENTRY

The fire code official shall determine and publicly announce when hazardous fire areas shall be closed to entry and when such areas shall again be opened to entry. Entry on and occupation of hazardous fire areas, except public roadways, inhabited areas or established trails and camp sites which have not been closed during such time when the hazardous fire area is closed to entry, is prohibited.

Exception:

1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands.
2. Entry, in the course of duty, by peace or police officers, and other duly authorized public officers, members of a fire department and members of the United States Forest Service.

Section 326 Trespassing on posted property is hereby added as follows:

SECTION 326

TRESPASSING ON POSTED PROPERTY

When the fire code official determines that a specific area within a hazardous fire area presents an exceptional and continuing fire danger because of the density of natural growth, difficulty of terrain, proximity to structures or accessibility to the public, such areas shall be closed until changed conditions warrant termination of closure. Such areas shall be posted as hereinafter provided.

1. Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.
2. Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception: Owners and occupiers of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their authorized agents acting in the course of duty.

§16.04.060 CHAPTER 4 AMENDMENTS.

Adopt only the following sections:

Section 401

Section 402

Section 403

Section 407

§16.04.070 CHAPTER 5 AMENDMENTS.

Section 503.2.1 Dimensions is hereby revised as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have two (2) unobstructed 12 feet travel lanes. Fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches. Approved security gates shall have a minimum of two unobstructed 12 feet travel lanes and shall be in accordance with Section 503.6. Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flow-line to flow-line on streets with rolled curbs

Section 503.2.3 Surface is revised as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed, and maintained to support the imposed loads of fire apparatus (75,000 lbs. load/25,000 point load) and shall be surfaced so as to provide all-weather driving capabilities. Alternative driving surfaces shall be designed by a registered civil engineer and shall be subject to approval by the Brea Fire Department.

Section 503.2.4 Turning radius is hereby revised as follows:

503.2.4 Turning radius The required turning radius of a fire apparatus access road shall be determined by the fire code official. Fire access road turns and corners shall be designed with a minimum inner radius of 17 feet and an outer radius of 45 feet. Radius must be concentric.

Section 503.3.5 Dead ends is hereby revised as follows:

503.3.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around

apparatus. All turnarounds shall be approved by a Fire Code Official. Roads 600 feet or longer in length may not terminate in a radius or hammerhead turnabout, but must become part of an inter-tying loop circulation system.

Section 503.2.7 Grade is hereby revised as follows:

503.2.7 Grade. The grade of the fire department access road shall be within the limits established by the fire code official based on the fire department's apparatus. The Gradient for the Fire Department access road shall not exceed ten (10 %) percent.

Section 503.3 Marking is hereby revised as follows:

503.3 Marking. Where required by the fire code official, approved signs or other approved notices or markings that include the words, NO PARKING – FIRE LANE, shall be provide for fire apparatus access roads to identify such roads for prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times, and be replaced or repaired as necessary to provide adequate visibility. All signs shall be instructed of minimum 18 gauge steel and shall be painted with reflective material.

Section 503.4 Obstruction of fire apparatus access roads is hereby revised as follows:

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 shall be maintained at all times. Speed bumps and speed humps shall be approved prior to installation.

Section 503.6 Security gates is hereby revised as follows:

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

Secured automated vehicle gates or entries shall utilize approved Knox access switches when required by a fire code official. Secured non-automated vehicle gates or entries shall utilize an approved padlock or chain (maximum link overlock shackle size of ¼ inch) when required by a fire code official.

Gate arms securing parking lots and parking structures shall be equipped with a Fire Department approved dual-keyed Knox key electric switch. When activated, the arm or arms shall open to allow fire and law enforcement access.

Secured automated vehicle gates or entries shall utilize a straight 30 feet approach and departure, measured from the furthestmost related gate, island, guard shack structure or other obstructions.

Electric gate key switches, padlocks and lock boxes for accessing properties shall be sub-mastered for law enforcement access. Sub-mastering lock boxes for building access is not required.

In the event of a power failure, the gates shall be defaulted or automatically transferred to a fail safe mode allowing the gate to be pushed open without the use of special knowledge or any equipment. If a two-gate system is used, the override switch must open both gates.

If there is no sensing device that will automatically open the gates for exiting, a Fire Department approved Knox electrical override switch shall be placed on each side of the gate in an approved location.

A final field inspection by the fire marshal or an authorized representative is required before electronically controlled gates may become operative. Prior to final inspection, electronic gates shall remain in a locked-open position.

Section 503.7 Apparatus access to fire hazard severity zones is hereby added as follows:

503.7 Apparatus access to fire hazard severity zones. A minimum of two open community entry points are required for emergency vehicle access in developments within a Fire Hazard Severity Zone.

Section 505.1 Address identification is hereby revised as follows:

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches high with a minimum stroke width of 0.5 inch for single-family residences.

All multi-family, multi-retail and multi-commercial occupancies shall have a minimum of 6 inch high numbers, with a minimum one-and-one-half inch (1 ½") stroke.

All light and heavy industrial occupancies shall have a minimum of ten (10) inch high numbers, with a minimum one-and-one-half inch (1 ½") stroke. All complexes that are three (3) stories or greater in height and/or have two (2) or

more building units shall have a minimum of ten (10) inch high numbers, with a one-and-one-half inch (1 ½") stroke.

All multi-family, multi-retail and multi-industrial occupancies shall identify individual units with numbers a minimum of four (4) inches, affixed to the unit's front door entrance or frame. All buildings with a rear door access shall identify that unit with the proper numbers affixed to the door or frame.

All buildings with two (2) or more units shall identify utility meters according to the unit being serviced.

Numbers shall be affixed on a structure in clear view, unobstructed by trees or shrubs.

Section 506.1 Where required is hereby revised as follows:

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the fire code official. Key boxes for accessing properties shall be sub-mastered for law enforcement access. Sub-mastering key boxes for building access is not required.

Secured emergency access gates serving apartment, town home or condominium complex courtyard, paseos, pool, Jacuzzi, sauna, or spa areas must be secured with a key box in addition to association or facility locks.

The nominal height of Knox lock box installations shall be five (5) feet above grade. Location and installation of Knox key boxes must be approved by the fire code official.

Section 507.5 Fire hydrant systems is hereby revised as follows:

507.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 508.5.1 through 508.5.6 Minimum basic fire hydrant spacing for residential and all commercial or industrial properties shall be spaced not more than three hundred (300) feet along streets or fire apparatus access roadways, so that all fire apparatus-accessible portions of the building are within one hundred fifty (150) feet of a hydrant.

Section 507.5.1 Where required is hereby revised as follows:

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than three hundred (300) from a hydrant on a fire apparatus access road, as measured by an

approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Section 507.5.3 Private Fire Service Mains and Water Tanks is hereby revised as follows:

507.5.3 Private fire service mains, hydrants and water tanks. Private fire service mains, hydrants and water tanks shall be periodically inspected, tested and maintained in accordance with Title 19, California Code of Regulations, Chapter 5.

Section 510.1.1 Emergency responder radio coverage requirements is added as follows:

510.1.1 Emergency responder radio coverage requirements. New buildings shall comply with the City of Brea In Building 800 Megahertz ordinance and/or any successor provisions thereto.

Section 510.2 Radio signal strength is hereby deleted without replacement:

§16.04.080 CHAPTER 6 AMENDMENTS.

Section 606.8 Refrigerant detector is hereby revised as follows:

606.8 Refrigerant Detector. Machinery rooms shall contain a refrigerant detector with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values shown in the California Mechanical Code for the refrigerant classification. Detectors and alarms shall be placed in approved locations. Emergency shutoff shall also be automatically activated when the concentration of refrigerant vapor exceeds 25 percent of LFL. The detector shall transmit a signal to an approved location.

Section 606.10.1.2 Manual operation is hereby revised as follows:

606.10.1.2 Manual operation. When required by the fire code official, automatic crossover valves shall be capable of manual operation. The manual valves shall be located in an approved location immediately outside of the machinery room, in a secure metal box and marked as Emergency Controls.

Section 608.1 Scope is hereby revised as follows:

608.1 Scope. Stationary storage battery systems having an electrolyte capacity of more than 50 gallons (189 L) for flooded lead acid, nickel cadmium (Ni-Cd) and valve-regulated lead acid (VRLA), or 1,000 pounds (454 kg) for lithium-ion, used for facility standby power, emergency power or, uninterrupted power supplies, or indoor storage of electric carts/cars shall comply with this section

and Table 608.1. Indoor charging of electric carts/cars with more than 50 gallons (189 L) shall comply with Section 608.10.

Section 608.10 Indoor charging of electric carts/cars is hereby added as follows:

608.10 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all carts/cars battery electrolyte exceeds 50 gallons shall comply with the following:

1. Spill control and neutralization shall be provided and comply with Section 608.5.
2. Room ventilation shall be provided and comply with Section 608.6.1.
3. Signage shall be provided and comply with Section 608.7.
4. Smoke detection shall be provided and comply with Section 907.2.

Section 610 is hereby added as follows:

SECTION 610

PHOTOVOLTAIC SYSTEMS

Photovoltaic systems shall comply with Orange County Fire Chief's Association Guideline for Fire Safety Elements of Solar Photovoltaic Systems. The provision of this section may be applied by either the fire code official or the building code official.

§16.04.090 CHAPTER 7 AMENDMENTS.

Section 704.1 Enclosure is hereby revised as follows:

704.1 Enclosure. Interior vertical shafts, including but not limited to stairways, elevator hoist ways, service and utility shafts that connect two or more stories of a building shall be enclosed or protected as specified in Chapter 7 of the building code.

§16.04.100 CHAPTER 9 AMENDMENTS.

Section 903.2 Where required is hereby revised as follows:

903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the following locations:

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area, as

defined in Section 202, exceeds 5,000 square feet (465 m²), or more than two stories in height, regardless of fire areas or allowable area.

Exception: Group R-3 occupancies. Group R-3 occupancies shall comply with Section 903.2.8.

2. **Existing buildings:** Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and when one of the following conditions exists:
 - a. When the addition is 33% or more of the existing building area and the resulting building area, as defined in Section 202, exceeds 5000 square feet (465 m²); or
 - b. When the addition exceeds 2000 (185.81 m²) square feet and the resulting building area, as defined in Section 202, exceeds 5000 square feet (465 m²); or
 - c. An additional story is added above the second floor regardless of fire areas or allowable area.

Section 903.2.8 Group R is hereby revised as follows:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area as follows:

1. **New buildings:** An automatic sprinkler system shall be installed throughout all new buildings.
2. **Existing buildings:** An automatic sprinkler system shall be installed throughout when one of the following conditions exists:
 - a. When an addition is 50% or more of the existing building area, as defined in Section 202, and greater than 1000 square feet (92.903 m²) within a two year period; or
 - b. An addition when the existing building is already provided with automatic sprinklers; or
 - c. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

3. **Existing buildings in the Very High Fire Hazard Severity Zone:** An Automatic sprinkler system shall be installed throughout when one of the following conditions exists:
- a. When an addition is 50% or more of the existing building area, as defined in Section 502.1, or greater than 1000 square feet (93.902 m²) within a two year period; or
 - b. An addition when the existing building is already provided with automatic sprinklers; or
 - c. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

Section 903.3.1.1.1 Exempt locations is hereby amended by revising exception 4 as follows:

- 4. When approved by the fire code official spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, and associated electrical power distribution equipment, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by fire barriers consisting of not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 712, or both.

Section 904.10.4 Clean-agent system is hereby added as follows:

904.10.4 Clean-agent system. In rooms without windows that open to the outside, an approved method shall be provided to exhaust any clean-agent from the room after system discharge.

Section 905.4 Location of Class I standpipe hose connections is hereby amended by adding items 7 and 8 as follows:

- 7. The centerline of the 2.5 inches (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) above and no more than 24 inches above the finished floor.
- 8. Every new building with any horizontal dimensions greater than 300 feet (91,440 mm) shall be provided with either access doors or a 2.5 inches outlets so that all portions of the building can be reached with 150 feet (46 m)) of hose from an access door or hose outlet. Required

access doors shall be located in the exterior of the building and shall be accessible without the use of a ladder. The door dimensions shall be not less than 3 feet (914 mm) in width, and not less than 6 feet 8 inches (2032 mm) in height. These doors are for fire department access only.

Section 907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 feet (22860 mm) above the lowest level of fire department vehicle access is hereby revised as follows:

907.2.13 High-rise buildings having occupied floors located more than 55 feet (16 769 mm) above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access. High-rise buildings having occupied floors located more than 55 feet (16 769 mm) above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access shall be provided with an automatic smoke detection in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the California Building Code.
2. Open parking garages in accordance with Section 406.3 of the California Building Code.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the California Building Code.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the California Building Code.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system.

Section 907.3.1 Occupancy requirements is hereby added as follows:

907.3.1 Occupancy requirements. A fire alarm system shall be installed in accordance with Sections 907.3.1.1 through 907.3.1.8. Fire alarm systems shall be upgraded and extended throughout each building during tenant improvements in buildings previously equipped with a manual fire alarm system. This upgrade shall only extend to the area of tenant improvement.

Section 907.4.1 Duct smoke detectors is hereby revised as follows:

907.4.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. Duct smoke detectors shall not be used as a substitute for required open area detection.

Exception:

1. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

Section 907.6.2.2 Emergency voice/alarm communication systems is hereby revised as follows:

907.6.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler water-flow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's plans required by Section 404. In high-rise buildings having occupied floors located more than 55 feet, and Group I-2 occupancies having floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Section 1002.1.
5. Dwelling Units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-1 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

Section 907.7.3.2 High-rise buildings is revised as follows.

907.7.3.2 High-rise buildings. High-rise buildings having occupied floors located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access and Group I-2 occupancies having occupied floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes
4. Other approved types of automatic detection devices or suppression systems.

Section 910.3.2.2 Sprinklered buildings is hereby revised as follows:

910.3.2.2 Sprinklered Buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at least 100° F above the operating temperature of the sprinkler, unless otherwise approved.

§16.04.110 CHAPTER 11 AMENDMENTS.

Section 1102.1 Definitions is hereby amended by adding the following definitions:

APPROACH-DEPARTURE PATH. The flight path of the helicopter as it approaches or departs from the landing pad.

EMERGENCY HELICOPTER LANDING FACILITY (EHLF). A landing area on the roof of a high rise building that is not intended to function as a heliport or helistop but is capable of accommodating fire or medical helicopters engaged in emergency operations.

SAFETY AREA. A defined area surrounding the landing pad which is free of obstructions.

TAKEOFF AND LANDING AREA. The combination of the landing pad centered within the surrounding safety area.

Section 1108 EMERGENCY HELICOPTER LANDING FACILITY is hereby added as follows:

SECTION 1108

EMERGENCY HELICOPTER LANDING FACILITY

1108.1 General. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 ft above the lowest level of the fire department vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by the fire code official for use by fire, police, and emergency medical helicopters only.

1108.1.1 Rooftop Landing Pad. The landing pad shall be 50 ft. x 50 ft. or a 50 ft. diameter circle that is pitched or sloped to provide drainage away from access points and passenger holding areas at a slope of 0.5 percent to 2 percent. The landing pad surface shall be constructed of approved non-combustible, nonporous materials. It shall be capable of supporting a helicopter with a maximum gross weight of 15,000 lbs. For structural design requirements, see California Building Code.

1108.1.2 Approach-Departure Path. The emergency helicopter landing facility shall have two approach-departure paths separated from each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing pad and is a rising slope extending outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

1108.1.3 Safety Area. The safety area is a horizontal plane level with the landing pad surface and shall extend 25 ft in all directions from the edge of the landing pad. No objects shall penetrate above the plane of the safety area.

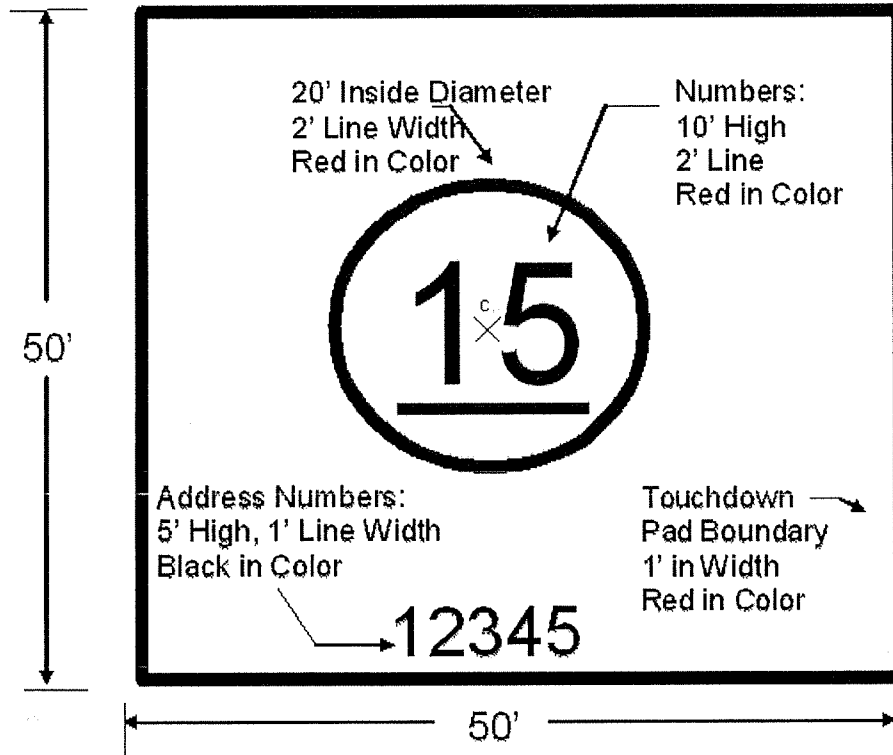
1108.1.4 Safety Net. If the rooftop landing pad is elevated more than 30 in. (2'-6") above the adjoining surfaces, a 6 ft in wide horizontal safety net capable of supporting 25 lbs/psf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing pad shall be slightly dropped (greater than 5 in. but less than 18 in.) below the pad elevation. The safety net shall slope upward but the outer safety net edge shall not be above the elevation of the landing pad.

1108.1.5 Take-off and Landing Area. The takeoff and landing area shall be free of obstructions and 100 ft x 100 ft. or 100 ft. diameter.

1108.1.6 Wind Indicating Device. An approved wind indicating device shall be provided but shall not extend into the safety area or the approach-departure paths.

1108.1.7 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 1108.1.7.

Figure 1108.1.7 Helicopter Landing Pad Markings



1. The preferred background is white or tan.
2. The circled, red numbers indicate the allowable weight that the facility is capable of supporting in thousands of pounds.
3. The numbers shall be oriented towards the preferred flight (typically facing the prevailing wind).

1108.1.8 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.4.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

1108.1.9 Standpipe systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5-inch outlet on a Class I or III standpipe.

1108.1.10 Fire extinguishers. A minimum of one portable fire extinguisher having a minimum 80-B:C rating shall be provided and located near the stairway or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety area. Installation, inspection, and maintenance of extinguishers shall be in accordance with the CFC, Section 906.

1108.1.11 EHLF. Fueling, maintenance, repairs, or storage of helicopters is prohibited.

§16.04.120 CHAPTER 14 AMENDMENTS.

Section 1410.1.1 Required access for construction sites is hereby added as follows:

1410.1.1 Required access for construction sites. Construction sites shall have a minimum of 6 feet perimeter security fencing with gates installed for fire apparatus access. Gate widths shall be a minimum of 24 feet for fire apparatus roadways and 6 feet for walk-in entry. Secured vehicle gates or entries shall utilize approved Knox padlock or entries shall utilize an approved padlock or chain (maximum link or lock shackle size of 1/4 ") when required by a fire code official. Temporary fire lane signs shall be provided and maintained to allow emergency access during construction. Hydrants, Fire Department connections, and fire lanes shall be posted, 'Fire Lane-No Parking' when required by a fire code official.

§16.04.130 CHAPTER 19 AMENDMENTS.

Section 1908.1 General is hereby revised as follows:

1908.1 General. The storage and processing of more than 400 cubic feet of wood chips, hogged materials, fines, compost, green waste, and raw product produced from yard waste, debris and recycling facilities shall comply with Sections 1908.2 through 1908.10.

Section 1908.2 Storage site is hereby revised as follows:

1908.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from fire code official is obtained before transferring products to the site.

Section 1908.3 Size of piles is hereby revised as follows:

1908.3 Size of piles. Piles shall not exceed 15 feet (4572 mm) in height, 50 feet (15 240 mm) in width and 100 feet (30 480 mm) in length.

Section 1908.7 Pile fire protection is hereby revised by adding the following statement to the last sentence:

1908.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

Section 1908.9 Material-handling equipment, is hereby revised by adding the following sentence at the beginning of the section:

1908.9 All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

§16.04.140 CHAPTER 23 AMENDMENTS.

Section 2308.3 Flue spaces is hereby amended as follows:

2308.3 Flue spaces. Flue spaces shall be provided in accordance with Table 2308.3. Required flue spaces shall be maintained. In double-row racks a pallet/commodity stop shall be provided along the longitudinal flue space at each level. The stop shall be steel or other ferrous material ¼ inch thick and in the mounted position shall extend a minimum of 4 inches above the shelf or cross member, or other method approved by fire code official. In double row racks and where products are hand-stacked chain link shall be securely attached to the rear of both racks. Chain link shall be a minimum of 12 gauge. Attachment method shall be in compliance with Figure 2308.3 or other methods as approved by the fire code official.

Table 2308.3 Required Flue Spaces for Rack Storage is hereby revised as follows:

**TABLE 2308.3
REQUIRED FLUE SPACES FOR RACK STORAGE**

RACK CONFIGURATION	FIRE SPRINKLER PROTECTION		SPRINKLER AT THE CEILING WITH OR WITHOUT MINIMUM IN-RACK SPRINKLERS		IN-RACK SPRINKLERS AT EVERY TIER	NON-SPRINKLERED
			≤ 25 feet		Any Height	Any Height
	Storage Height		Option 1	Option 2		
Single-row Rack	Transverse Flue Space	Size ^b	3 inch	NA	3 inch	NR
		Vertically Aligned	NR	NA	Yes	NA
	Longitudinal Flue Space		NR	NA	NR	NR
Double-row Rack	Transverse Flue Space	Size ^b	6 inch _{a, c}	3 inch	3 inch	NR
		Vertically Aligned	NR	NR	Yes	NA
	Longitudinal Flue Space		NR	6 inch	6 inch	NR
Multi-row Rack	Transverse Flue Space	Size ^b	6 inch _c	NA	6 inch	NR
		Vertically Aligned	NR	NA	Yes	NA
	Longitudinal Flue Space		NR	NA	NR	NR

NR = "not required." NA means "not applicable."

^a Three-inch transverse flue spaces shall be provided at least every 10 feet where ESFR sprinkler protection is provided.

^b Random variations are allowed, provided that the configuration does not obstruct water penetration.

^c Transverse flue space shall be maintained by mechanical means as approved.

§16.04.150 CHAPTER 33 AMENDMENTS.

Section 3308.2 Fireworks display is hereby added as follows:

3308.2 Firework display. Fireworks displays shall be in accordance with the Brea Fire Department Guidelines for Public Fireworks Displays, the regulations of the State Fire Marshal, and the conditions of the permit as approved by the fire code official.

Section 3310 Retail Fireworks is hereby added as follows:

SECTION 3310 RETAIL FIREWORKS

The storage, use, sale, possession, and handling of fireworks 1.4G (commonly referred to as Safe & Sane) and fireworks 1.3G is prohibited.

Section 3311 Seizure of Fireworks is hereby added as follows:

SECTION 3311 SEIZURE OF FIREWORKS

The fire code official shall have the authority to seize, take, remove all fireworks stored, sold, offered for sale, used or handled in violation of the provisions of Title 19 CCR, Chapter 6. Any seizure or removal pursuant to this section shall be in compliance with all applicable statutory, constitutional, and decisional law.

Exception: Fireworks 1.4G and fireworks 1.3G may be part of an electrically fired public display when permitted and conducted by a licensed pyrotechnic operator.

§16.04.160 CHAPTER 37 AMENDMENTS

Section 3704.2.2.7 Treatment systems, exceptions, is hereby revised the exception as follows:

Exception:

1. Toxic gases – storage/use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 1,700 pounds (772 Kg) water capacity when the following are provided:

- 1.1 A listed or approved gas detection system with a sensing interval not exceeding 5 minutes.

- 1.2 For storage, valve outlets are equipped with gas-tight outlet plugs or caps.
- 1.3 For use, an approved listed or approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection system shall comply with Section 3704.2.2.10.

§16.04.170 CHAPTER 47 AMENDMENTS is adopted in its entirety with the following amendments:

NFPA 13, 2010 Edition, Installation of Sprinkler Systems is hereby amended as follows:

Section 6.8.1.3 is hereby deleted in its entirety

Section 6.8.3 is hereby revised as follows:

6.8.3 Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 ½" inlets. The location shall be approved and be no more than 45 feet from a public hydrant. The size of piping and the number of inlets shall be approved by the chief. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided. FDC may be located within 45 feet of a private fire hydrant when approved by the chief.

Section 6.8.4 is hereby added as follows:

6.8.4 Fire department connections shall be isolated from the sprinkler system by means of a flange mounted wafer or butterfly style check valve.

Section 8.16.1.3.3 is hereby revised as follows:

8.16.1.3.3 Post indicating valves shall be located not less than 40 feet from the building served.

Section 8.16.1.3.3.1 is hereby added as follows:

8.16.1.3.3.1 Where it is impractical to locate post indicating valve(s) 40 feet from the building served, they shall be permitted to be located closer, or wall post indicating valve used, providing they are set in locations by blank walls or without openings of not less than 15 feet on either side of the valve, clear to the

roof, or permitted to be placed in valve rooms accessible only from the exterior, or exterior risers providing they are set in locations by blank walls or without openings of not less than 15 feet on either side of the valve, clear to the roof. The location is subject to approval by the authority having jurisdiction.

Section 8.16.1.5.1 is hereby revised as follows:

Section 8.16.1.5.1 Large private fire service main systems shall have post indicating sectional controlling valves at appropriate points when the system serves more than 3 appurtenances in order to permit sectionalizing the system in the even of a break or for marking of repairs or extensions. Note: A hydrant or a single fire line service to a building counts as one appurtenance.

Section 8.17.1.1.1 Residential waterflow alarms is hereby added as follows:

8.17.1.1.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be minimum of 15 DBA above the average ambient sound or a minimum of 75 DBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Section 8.17.2.4.6 is hereby revised as follows:

8.17.2.4.6 Fire department connections shall be on the street side of buildings and shall be located and arranged so that they are immediately adjacent to the approved fire department access road and that hose lines can be readily and conveniently attached to the inlets without interference from nearby objects including buildings, fence, posts, or other fire department connections.

Section 9.1.3.9 is hereby amended as follows:

9.1.3.9 The use of powder driven studs is prohibited.

Section 9.3.5.1.2.1 is hereby added as follows:

9.3.5.1.2.1 Lag screws and powder driven studs shall not be used to attach earthquake bracing to the building structure.

Section 9.3.5.9.4 is hereby deleted in its entirety

Section 9.3.5.10.4 is hereby added as follows:

9.3.5.10.4 Where pipe is used for sway bracing it shall have a wall thickness of not more than schedule 40.

Section 10.1.6.1 is hereby revised as follows:

10.1.6.1 All ferrous metal pipes shall be lined, and steel pipe shall be coated and wrapped, with joints coated and wrapped after assembly. All ferrous pipe and fittings shall be protected with a loose 8-mill polyethylene tube. The ends of the tube shall be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Section 10.3.5.3 is hereby added as follows:

10.3.5.3 All jointed bolt accessories including, but not limited to, bolts, nuts, angle eye bolts, and all thread rod shall be stainless steel.

Section 10.8.2.5 is hereby added as follows:

10.8.2.5 The trench shall be excavated for thrust blocks and inspected prior to pour. Care shall be taken when forming and pouring thrust blocks that fittings and joints are not buried in concrete.

Section 10.9.1 is hereby revised as follows:

10.9.1 Backfill shall be well tamped in layers and wetted under and around pipes to prevent settlement or lateral movement. Backfill shall consist of clean fill sand to a minimum of 12" below and to a minimum of 12" above the pipe. In lieu of sand backfill, native soil backfill which has been determined to be acceptable for backfill by a registered geological engineer or site specific soils report may be used.

Section 11.1.1.2 is hereby added as follows:

11.1.1.2 When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction/s in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the permit is issued. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the occupant to upgrade the system to the required density for the new occupancy.

Section 22.1.3 (43) is hereby revised as follows:

22.1.3 (43) Size and location of hydrants, showing size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in the flow tests shall be shown. Flow test shall be completed within six months of the plan submittal to the authority having jurisdiction.

NFPA 13R 2010 Edition Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height is hereby amended as follows:

Section 6.6.6 is hereby revised as follows:

6.6.6 Sprinklers shall not be required in penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator cars comply with ANSI A17.1, Safety Code for Elevators and Escalators, and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel fired equipment.

Section 6.6.9 is hereby added as follows:

6.6.9 Sprinklers shall not be required in attics that are not located over dwelling units. When attics are separated by unit, each unit's attic space may be protected per NFPA 13D Section 8.6.4.2. All other attics shall be protected per NFPA 13.

Section 6.11.1 is hereby revised as follows:

6.11.1 At least one fire department connection shall be provided for buildings, accessible by the fire department

Section 6.11.2 is hereby revised as follows:

6.11.2 Fire department connections shall consist of at least two 2 ½ inch female couplings.

Section 6.11.5 is hereby added as follows:

6.11.5 Fire department connections shall be isolated from the sprinkler systems by means of a flange mounted wafer or butterfly style check valve.

Section 6.16.1 is hereby revised as follows:

6.16.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Section 907.2.8 of the 2010 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 dBA above the average ambient sound or a minimum of 75 dBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

There shall also be a minimum of one exterior alarm indicating device, listed for outside service and audible from the access roadway that serves that building.

NFPA 13D 2010 Edition Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

Section 4.1.5 is hereby added as follows:

4.1.5 Stock of Spare Sprinklers

Section 4.1.5.1 is hereby added as follows:

4.1.5.1. A supply of at least two sprinklers for each type shall be maintained on the premises so that any sprinklers that have operated or been damaged in any way can be promptly replaced.

Section 4.1.5.2 is hereby added as follows:

4.1.5.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

Section 4.1.5.3 is hereby added as follows:

4.1.5.3 The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100 °F (38°C).

Section 4.1.5.4 is hereby added as follows:

4.1.5.4 A special sprinkler wrench shall be provided and kept in the cabinet to be used in the removal and installation of sprinklers. One sprinkler wrench shall be provided for each type of sprinkler installed.

Section 4.2.1 is hereby revised as follows:

4.2.1 The system shall be hydrostatically tested for leakage at 50 lbs. above the maximum water supply pressure up to a maximum of 150 lbs. This test shall be conducted with plugs in sprinkler outlets. Sprinklers shall be installed after the hydro test and before the final inspection. Plugs used for the hydro test shall be retained on site for verification after removal.

Section 7.1.2 is hereby revised as follows:

7.1.2 The system piping shall not have a separate control valve unless supervised by a central station, proprietary, or remote station alarm service.

Section 7.3 Pressure Gauges is hereby deleted and substituted with the following:

Section 7.3.1 is hereby deleted in its entirety and replaced as follows:

7.3.1 At least one water pressure gauge shall be installed on the riser assembly.

Section 7.6 is hereby deleted in its entirety and replaced as follows:

7.6 Alarms Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the chief. Additional interior alarm devices shall be required to provide audibility throughout the structure. Sound levels in all sleeping areas with all intervening doors closed shall be a minimum of 15 dBA above the average ambient sound level but not less than 75 dBA. Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exception:

1. When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.
2. When smoke detectors specified under CBC Section 310.9 are used to sound an alarm upon waterflow switch activation.

Section 8.2.1.1 is hereby revised as follows:

8.2.1.1 In rooms or areas with slopes, multiple beams or construction features creating conditions where sprinklers are obstructed, or the sprinkler head placement exceeds parameters specified in the products listing, plans shall bear the wet-stamp of a registered professional engineer certifying equal or greater protection than prescribed in the 2007 Edition of NFPA 13 D.

Section 8.6.1 is hereby advised as follows:

8.6.1 Sprinklers shall be installed in all areas except where omission is permitted by 8.6.2 through 8.6.9.

Section 8.6.4 is hereby revised as follows:

8.6.4 Sprinklers shall not be required in open attached porches, carports, or similar structures.

Section 8.6.8 is hereby added as follows:

8.6.8 Attached garages shall be protected with listed quick response fire sprinklers, spaced to protect a maximum area of 130 square feet (12.1 m²).

Section 8.6.9

8.6.9 All attics shall be protected with an intermediate temperature quick response sprinkler which shall be located to protect attic penetrations created by the access scuttles or mechanical equipment.

NFPA 14, 2007 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:

Section 6.4.5.1.1.1 is hereby added as follows:

6.4.5.1.1.1 The fire department connection shall have a minimum of two 2 ½ inches, internal threaded (NHS) inlets. Additional inlets shall be provided on a 250 GPM per inlet ratio to meet the system demand. The inlets shall be provided with approved caps to protect the system from entry of debris.

Section 6.4.5.4. is hereby deleted in its entirety and replaced as follows:

6.4.5.4 The location of the FDC shall be approved and be no more than 45 feet from a public hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red.

Section 6.4.5.4.1 is hereby is deleted in its entirety.

Section 7.3.1.1 Hose connection height is hereby is deleted in its entirety and replaced as follows:

7.3.1.1 Class I and III Standpipe hose connections shall be unobstructed and shall be located not less than 18 inches, or more than 24 inches above the

finished floor. Class II Standpipe hose connections shall be unobstructed and shall be located not less than 3 feet or more than 5 feet above the finished floor.

NFPA 24, 2010 Edition, Installation of Private Fire Service Mains and Their Appurtenances is hereby amended as follows:

Section 5.9.1.3 is hereby revised as follows:

5.9.1.3 The fire department connection shall be of an approved type and contain a minimum of two 2 ½ inch inlets. The location shall be approved and be no more than 45 feet from a public fire hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. The supply pipe shall be painted OSHA safety red.

Section 5.9.1.3.1 is hereby added as follows:

5.9.1.3.1 When the sprinkler density design is 500 gpm (including the interior hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

Section 5.9.1.5 is hereby added as follows:

5.9.1.5 Fire Department connections shall be on the street side of the building and arranged so that they are located immediately adjacent to the approved fire department access road.

Section 6.2.11 (5) is hereby deleted without replacement:

Section 6.2.11 (6) is hereby revised as follows:

6.2.11 (5) Control valves in a one-hour fire-rated room accessible from the exterior

Section 6.3.3.2 is hereby deleted in its entirety and replaced with the following:

6.3.3.2 Post indicating valves shall be located no less than 40 feet from the building served.

Exception: Where it is impractical to place the post indicating valves 40 feet from the building served, they shall be permitted to be placed closer, where a wall post indicating valve is used providing they are set in locations by blank walls or without openings of not less than 15 feet on either side of the valve, clear to the roof, or permitted to be placed in valve rooms accessible only to the exterior, or exterior risers providing they are set in locations by blank walls or without openings of not less than 15 feet on either side of the valve, clear to the roof. The location is subject to the approval of the fire chief.

Section 6.6.1 is hereby deleted in its entirety and replace with the following:

6.6.1 Large private fire service main systems shall have post indicating sectional controlling valves at appropriate points when the system serves more than 3 appurtenances in order to permit sectionalizing the system in the event of a break or making repairs or extensions. A hydrant or a single fire line service to a building counts as one appurtenance.

Section 10.1.6.3 is hereby added as follows:

10.1.6.3 All ferrous pipe shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Exception: 316 Stainless Steel pipe and fittings

Section 10.3.5.2 is hereby revised as follows:

10.3.5.2 All bolted joint accessories including but not limited to bolts, nuts, angle eye bolts, and all thread rod shall be 316 stainless steel.

Section 10.6.3.1 is hereby revised as follows:

10.6.3.1 Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 18 inches, as measured from the interior of the exterior wall. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain mechanical joints or comply with 10.6.2.

Section 10.6.5 is hereby revised as follows:

10.6.5 Pipe Joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain mechanical joints.

Section 10.8.2.4 is hereby added as follows:

10.8.2.5 The trench shall be excavated for thrust blocks and inspected prior to pour. Care shall be taken when forming and pouring thrust blocks that fittings and joints are not buried in concrete.

Section 10.9.1 is hereby revised as follows:

10.9.1 Backfill shall be well tamped in layers and wetted under and around pipes to prevent settlement or lateral movement. Backfill shall consist of clean fill sand to a minimum of 12 inches below and a minimum of 12 inches above the pipe. In lieu of sand backfill, native soil backfill, which is determined to be acceptable by a registered geological engineer or site specific soils report may be used.

NFPA 72, 2010 Edition National Fire Alarm Code

Section 14.2.1.2.3 is hereby revised as follows:

14.2.1.2.3 If a defect or malfunction is not corrected at the conclusion of system inspection, testing, or maintenance, the system owner or the owner' designated representative and fire code official shall be informed of the impairment in writing within 24 hours.

Section 23.8.2 is hereby revised as follows:

23.8.2.2 Except as permitted in 23.8.2.3, the fire alarm systems components shall be permitted to share control equipment or shall be able to operate as stand-alone subsystems, but in any case, they shall be arranged to function as a single system and send a single signal to a central, remote, or proprietary station.

Section 23.8.2.3 is hereby deleted without replacement:

Section 26.2.3.1 is hereby revised as follows:

26.2.3.1 Supervising station customers or clients and the fire code official shall be notified in writing within 7 days of any scheduled change in service that results in signals from their property being handled by a different supervising station facility.

§16.04.180 CHAPTER 49 AMENDMENTS.

Section 4908 Fuel Modification Requirements for New Construction is hereby added as follows:

Section 4908.1 General

4908.1 General. All new buildings to be built or installed in areas containing combustible vegetation shall comply with the following:

Section 4908.2 Preliminary fuel modification plans

4908.2 Preliminary fuel modification plans. Preliminary fuel modification plans shall be submitted to and approved by the Chief concurrent with the submittal for approval of any tentative map.

Section 4908.3 Final fuel modification plans

4908.3 Final fuel modification plans. Final fuel modification plans shall be submitted to and approved by the chief prior to the issuance of a grading permit. For a minimum distance of 180 feet beyond the construction boundary of any property on which a structure can be build in a wildland are there shall be a landscape fuel modification plan. Depending on existing conditions, this fuel modification area could be extended to a distance of up to 300 feet. Details of the plan must be in accordance with the following sections, and must be approved by the Fire Chief.

Section 4908.3.1 Zone A

4908.3.1 Zone A. A minimum 30 foot zone (Zone A) nearest the developed property shall be free of any combustible construction and shall include a fully irrigated zone of fire resistant plant material.

Section 4908.3.2 Zone B

4908.3.2 Zone B. A minimum 50 foot zone (Zone B) shall be irrigated, thinned of native plant materials as directed by the Fire Chief, cleared of all dead or dying plant material, and planted with fire resistant plant materials.

Section 4908.3.3 Zone C

4908.3.3 Zone C. A minimum 50 foot zone (Zone C) shall include thinning of the native plant materials as directed by the Fire Chief and removal of all dead or dying plant materials.

Section 4908.3.4 Zone D

4908.3.4 Zone D. A minimum 50 foot zone (Zone D) shall include thinning of the native plant materials as directed by the Fire Chief and removal of all dead or dying plant materials.

Section 4908.4 Alternate plan

4908.4 Alternate plan. When conditions exist that prevent the installation of this 180 foot fuel modification zone the Fire Chief may approve an alternate plan that may include a combination of landscape and/or building modifications.

Section 4908.5 Alterations

4908.5 Alterations. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification plan shall be approved by the chief.

Section 4908.6 Maintenance

4908.6 Maintenance. All elements of the fuel modification plan shall be maintained in accordance with Section 304.1.2 of this Code.

Section 4908.7 Homeowners Associations is hereby added as follows:

4908.7 Homeowners Associations. Where the Fuel Modification Zone is to be maintained by a homeowners' association the conditions, covenants and restrictions recorded against all property within the homeowners' association shall require specifically budgeted funds sufficient to meet the ongoing maintenance obligations of the applicable fuel modification requirements. The Fuel Modification Zone shall be subject to an annual inspection conducted by a representative of the Fire Chief in order to assure that the Fuel Modification Zone continues to be maintained in compliance with the applicable fuel modification requirements. Any occupied structure on any lot which adjoins a Fire Hazard Severity Zone shall be constructed in compliance with all requirements of the City's Building Code and City's Fire Code which are applicable to dwellings or occupied structures which are built on lots within Fire Hazard Severity Zones with the exception that sprinklers shall not be required unless otherwise provided for by other applicable provisions of the City Building Code and City Fire Code.

§16.04.200 Fees.

Fee schedules for any permits, licenses, inspections, plan check or other related work or services provided by the Fire Department in connection with the application of this chapter or the Code adopted hereby shall be as established by resolution of the City Council as the same may be amended from time to time."

Section 4. Penalties. It shall be unlawful for any person, firm, partnership, or corporation to violate any provision or to fail to comply with any of the requirements of this Ordinance or the Code hereby adopted. Unless a violation is deemed therein to be an infraction, any person, firm, partnership, or corporation violating any provision of the Ordinance or the Code hereby adopted or failing to comply with any of their requirements shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding One Thousand Dollars (\$1,000.00) or by imprisonment not exceeding six (6) months, or by both such fine and imprisonment. Each such person, firm, partnership, or corporation shall be deemed guilty of a separate offense for each and every day or any portion thereof during which any violation of any of the provisions of this Ordinance or the Code hereby adopted is

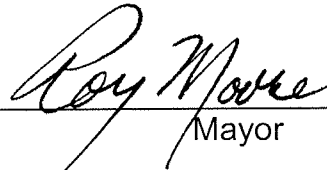
committed, continued or permitted by such person, firm, partnership or corporation, and shall be deemed punishable therefore as provided in this Ordinance.

Section 5. Civil Remedies Available. The violation of any of the provisions of this Ordinance or the Code hereby adopted shall constitute a nuisance and may be abated by the City through civil process by means of restraining order, preliminary or permanent injunction or in any other manner provided by law for the abatement of such nuisances.

Section 6. Severability. The City Council hereby declares that should any provision, section, paragraph, sentence, or word of this Ordinance or the Code hereby adopted be rendered or declared invalid by any final court action in a court of competent jurisdiction, or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences and works of this Ordinance and the Code hereby adopted shall remain in full force and effect.

Section 7. The City Clerk shall certify to the adoption of this Ordinance.

APPROVED AND ADOPTED this 18th day of January, 2011.



Mayor

I, Lucinda Williams, City Clerk of the City of Brea, do hereby certify that the foregoing Ordinance was introduced at a regular meeting of the City Council of the City of Brea held on the 21st day of December, 2010 and was finally passed at a regular meeting of the City Council of the City of Brea held on the 18th day of January, 2011 by the following vote:

AYES: COUNCIL MEMBERS: Garcia, Murdock, Simonoff, Schweitzer, Moore

NOES: COUNCIL MEMBERS: None

ABSENT: COUNCIL MEMBERS: None

ABSTAIN: COUNCIL MEMBERS: None

ATTEST: _____
City Clerk

DATE: January 27, 2010



City of Brea

January 24, 2011

California Building Standards Commission
2525 Natomas Park Dr., Suite 130
Sacramento, California 95833-2936

RE: City of Brea, Building Adoption Ordinance

Mr. Dave Walls:

The City of Brea has adopted the current Building, Residential, Green Building Standards, Plumbing, Mechanical, and Electrical Codes of the State of California.

The City of Brea has recommended changes and modifications to the Codes and have advised that certain said changes and modifications to the 2010 Editions of the California Building and Residential Codes are reasonably necessary due to local conditions in the City of Brea and have further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Code or are reasonably necessary to safeguard life and property within the City of Brea.

The enclosed City Ordinance is for your files.

If additional information is desired please telephone this office at (714) 990-1676.

Sincerely,

Gabriel Linares P.E., C.B.O.
Building & Safety Manager
Community Development Department

Attachment: Ordinance 10-1146

Resolution 10-99

City Council

Roy Moore
Mayor

Don Schweitzer
Mayor Pro Tem

Ron Garcia
Council Member

Brett Murdock
Council Member

Marty Simonoff
Council Member

ORDINANCE NO. 1146

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BREA ADOPTING THE 2010 EDITION OF THE CALIFORNIA ADMINISTRATIVE, BUILDING, RESIDENTIAL, MECHANICAL, PLUMBING, ELECTRICAL, GREEN BUILDING STANDARDS, ENERGY, HISTORICAL BUILDING AND EXISTING BUILDING CODES AND THE ORANGE COUNTY GRADING AND EXCAVATION CODE TOGETHER WITH APPENDICES, AMENDMENTS, DELETIONS AND PENALTIES AND AMENDING TITLE 15 OF THE BREA CITY CODE

A. RECITALS:

(i) Section 50022, et seq. of the California Government Code authorizes the adoption by reference of codes, including the codes specified in the title of this Ordinance.

(ii) At least one (1) copy of said Codes, certified as full, true and correct, has been filed in the office of the City Clerk of the City of Brea in accordance with the provisions of California Government Code Section 50022.6.

(iii) A duly noticed public hearing, as required by California Government Code Section 50022.3, has been conducted and concluded prior to the adoption of this Ordinance.

(iv) All legal prerequisites to the adoption of this Ordinance have occurred.

B. ORDINANCE:

NOW, THEREFORE, be it found, determined and resolved by the City Council of the City of Brea does hereby find, determine and ordain as follows:

SECTION 1.

In all respects as set forth in the Recitals, Part A, of this Ordinance.

SECTION 2.

Chapters 15.04, 15.08, 15.12, 15.16, 15.20, and 15.28 of Title 15 of the Brea City Code hereby are repealed; provided, however, that said repeal shall not affect or excuse any violation thereof occurring prior to the effective date of this Ordinance and provided further that the Codes adopted by reference and amended by Ordinance No. 1110 of this City, shall continue to be applicable to construction wherein plans have

been submitted for plan check as of the effective date of this Ordinance so long as the initial permit therefore is issued no later than ninety (90) days after the effective date of this Ordinance.

SECTION 3.

A new Chapter 15.04 is hereby added to Title 15 of the Brea City Code to read as follows:

“CHAPTER 15.04: ADMINISTRATIVE CODE

Sections

- 15.04.010 California Administrative Code adopted
- 15.04.020 Conflicting provisions

§15.04.010 CALIFORNIA ADMINISTRATIVE CODE ADOPTED.

Except as provided in this chapter, the ‘2010 California Energy Code’, is hereby adopted in its entirety and shall be and become the Energy Code of the City of Brea, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of energy systems.

§15.04.020 CONFLICTING PROVISIONS.

In the event of a conflict between any provision contained in the Administrative Code and the administrative provisions of the city's building codes, the more specific provision shall be given effect, unless another applicable provision is determined by the Building Official to more fully provide for the public health and safety and/or will more fully promote the intent of the city's building codes.”

SECTION 4.

A new Chapter 15.08 is hereby added to Title 15 of the Brea City Code to read as follows:

“CHAPTER 15.08: BUILDING CODE

Sections

- 15.08.010 2010 California Building Code adopted
- 15.08.020 2010 California Building Code- Amendments

§15.08.010 CALIFORNIA BUILDING CODE ADOPTED.

“The ‘2010 California Building Code’, including Appendix I, and incorporating the 2009 International Building Code, as published by the International Code Council, hereby is adopted in its entirety as the Building Code of the City of Brea, together with the amendments, additions, deletions and exceptions set forth in this Chapter.

§15.08.020 CALIFORNIA BUILDING CODE-AMENDMENTS.

The California Building Code is hereby amended as follows:

SECTION 403 - AMENDED

SECTION 403

Section 403 HIGH-RISE BUILDINGS HAVING OCCUPIED FLOORS LOCATED MORE THAN 55 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS AND GROUP I-2 OCCUPANCIES HAVING OCCUPIED FLOORS LOCATED MORE THAN 75 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS

SECTION 403.1 DEFINITIONS - AMENDED

403.1 Applicability. New high-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and new Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access shall comply with Sections 403.2 through 403.6.

SECTION 403.1 DEFINITIONS ITEM 2 - AMENDED

2. 'High-rise structure' means every building of any type of construction or occupancy having floor used for human occupancy located above 55 feet above the lowest floor level having building access (see Section 403.1.2), except buildings used as hospitals as defined by the Health and Safety Code Section 1250.

SECTION 403.4.7.2 STANDBY POWER LOADS - AMENDED

403.4.7.2 Standby power loads. The following are classified as standby power loads:

1. Power and lighting for the fire command center required by Section 403.4.5; and
2. Standby power shall be provided for elevators in accordance with Sections 1007.4, 3003, 3007, and 3008.

SECTION 403.4.8.1. EMERGENCY POWER LOADS - AMENDED

403.4.8.1 Emergency power loads. The following are classified as emergency power loads:

1. Exit signs and means of egress illumination required by Chapter 10;
2. Elevator car lighting;
3. Emergency voice/alarm communications systems;
4. Automatic fire detection systems;

5. Fire alarm systems;
6. Electrically powered fire pumps; and
7. Ventilation and automatic fire detection equipment for smoke proof enclosures.

SECTION 412.1 GENERAL - AMENDED

Section 412.1 General. Aircraft-related occupancies, except for Emergency Helicopter Landing Facility, shall comply with Sections 412.1 through 412.7 and the California Fire Code.

SECTION 412.2 DEFINITIONS - ADDED

412.2 Definitions is hereby amended by adding the following definitions:

APPROACH-DEPARTURE PATH. The flight path of the helicopter as it approaches or departs from the landing pad.

EMERGENCY HELICOPTER LANDING FACILITY (EHLF). A landing area on the roof of a building that is not intended to function as a heliport or helistop but is capable of accommodating fire or medical helicopters engaged in emergency operations.

SAFETY AREA. A defined area surrounding the landing pad which is free of obstructions.

TAKE-OFF AND LANDING AREA. The combination of the landing pad centered within the surrounding safety area.

SECTION 412.7.5 Emergency helicopter landing facility (EHLF) - ADDED

412.7.5. Emergency Helicopter Landing Facility. Emergency Helicopter Landing Facility (EHLF) shall be constructed as specified in Section 412.7.5.1 through 412.7.5.13.

SECTION 412.7.5.1 General - ADDED

412.7.5.1 General. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 ft above the lowest level of the fire department vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by the fire code official for only use by fire, police, and emergency medical helicopters.

SECTION 412.7.5.2 Rooftop landing pad - ADDED

412.7.5.2 Rooftop Landing Pad. The landing pad shall be 50 ft. x 50 ft. or a 50 ft. diameter circle that is pitched or sloped to provide drainage away from access points and passenger holding areas at a slope of 0.5 percent to 2 percent. The landing pad

surface shall be constructed of approved non-combustible, nonporous materials. It shall be capable of supporting a helicopter with a maximum gross weight of 15,000 lbs. For structural design requirements, see California Building Code.

SECTION 412.7.5.3 Approach-departure path - ADDED

412.7.5.3 Approach-Departure Path. The emergency helicopter landing facility shall have two approach-departure paths separated in plan from each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing pad and is a rising slope extending outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

SECTION 412.7.5.4 Safety area - ADDED

412.7.5.4 Safety Area. The safety area is a horizontal plane level with the landing pad surface and shall extend 25 ft in all directions from the edge of the landing pad. No objects shall penetrate above the plane of the safety area.

SECTION 412.7.5.5 Safety net - ADDED

412.7.5.5 Safety Net. If the rooftop landing pad is elevated more than 30 in. (2'-6") above the adjoining surfaces, a 6 ft in wide horizontal safety net capable of supporting 25 lbs/psf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing pad shall be slightly dropped (greater than 5 in. but less than 18 in.) below the pad elevation. The safety net shall slope upward but the outer safety net edge shall not be above the elevation of the landing pad.

SECTION 412.7.5.6 Take-off and Landing Area - ADDED

412.7.5.6 Take-off and Landing Area. The takeoff and landing area shall be free of obstructions and 100 ft x 100 ft. or 100 ft. diameter.

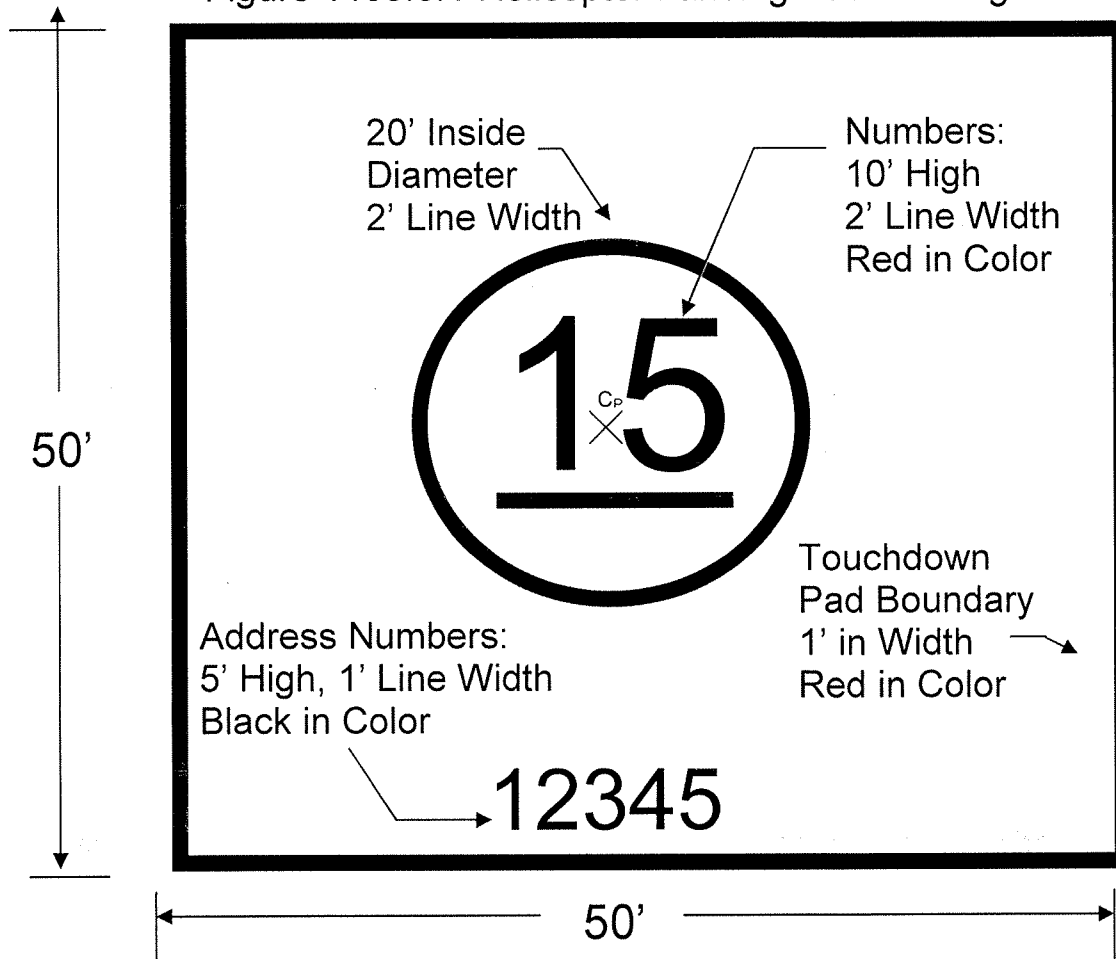
SECTION 412.7.5.7 Wind indicating device - ADDED

412.7.5.7 Wind Indicating Device. An approved wind indicating device shall be provided but shall not extend into the safety area or the approach-departure paths.

SECTION 412.7.5.8 Special markings - ADDED

412.7.5.8 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 1108.8.1.

Figure 1108.8.1 Helicopter Landing Pad Markings



1. The preferred background is white or tan.
2. The circled, red numbers indicate the allowable weight that the facility is capable of supporting in thousands of pounds.
3. The numbers shall be oriented towards the preferred flight (typically facing the prevailing wind).

SECTION 412.7.5.9 EHLF Exits - ADDED

412.7.5.9 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.4.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

SECTION 412.7.5.10 Standpipe systems - ADDED

412.7.5.10 Standpipe systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5-inch outlet on a Class I or III standpipe.

SECTION 412.7.5.11 Fire extinguishers - ADDED

412.7.5.11 Fire extinguishers. A minimum of one portable fire extinguisher having a minimum 80-B:C rating shall be provided and located near the stairways or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety area. Installation, inspection, and maintenance of extinguishers shall be in accordance with the CFC, Section 906.

SECTION 412.7.5.13 EHLF - ADDED

412.7.5.13 EHLF. Fueling, maintenance, repairs, or storage of helicopters shall not be permitted.

SECTION 701A.3 APPLICATION - FIRST PARAGRAPH AMENDED

701A.3 Application. New buildings and additions located in any fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter.

SECTION 701A.3 APPLICATION Exception No. 4 - DELETED

SECTION 701.A.3.2 ADDITIONS AND REMODELS - ADDED

701A.3.2 Additions and remodels. Additions and remodels affecting the buildings originally constructed prior to the applicable application date need only comply when an addition is 50% or more of the existing building area, as defined in Section 502.1, or greater than 1000 square feet (92.903 m²) within a two year period. Such additions and remodels shall comply with sections; 705A, 706A and 708A of this chapter.

SECTION 705A.5 ALTERATION OR REPAIR - ADDED

705A.5 An existing building or portion thereof, which does not comply with the requirements of this code for alterations or repairs affecting 50% or more of the buildings roofing shall be replaced with a Class A roof assembly per section 1505.2.

SECTION [F] 903.2 WHERE REQUIRED - AMENDED

[F] 903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the following locations:

1. New buildings: Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area, as defined in Section 502.1, exceeds 5,000 square feet (465 m²), or more than two stories in height, regardless of fire areas or allowable area.

Exception: Group R-3 occupancies. Group R-3 occupancies shall comply with Section 903.2.8.

2. Existing buildings: Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and when one of the following conditions exists:
 - a. When the addition is 33% or more of the existing building area and the resulting building area, as defined in Section 502.1, exceeds 5000 square feet (465 m²); or
 - b. When the addition exceeds 2000 (185.81 m²) square feet and the resulting building area, as defined in Section 502.1, exceeds 5000 square feet (465 m²); or
 - c. An additional story is added above the second floor regardless of fire areas or allowable area.

SECTION [F] 903.2.8 GROUP R - AMENDED

[F] 903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area as follows:

1. New buildings: An automatic sprinkler system shall be installed throughout all new buildings.
2. Existing buildings: An automatic sprinkler system shall be installed throughout when one of the following conditions exists:
 - a. When an addition is 50% or more of the existing building area, as defined in Section 502.1, and greater than 1000 square feet (92.903 m²) within a two year period; or
 - b. An addition when the existing building is already provided with automatic sprinklers; or
 - c. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

3. Existing buildings in the Very-High Fire Hazard Severity Zone: An automatic sprinkler system shall be installed throughout when one of the following conditions exists:
 - a. When an addition is 50% or more of the existing building area, as defined in Section 502.1, or greater than 1000 square feet (92.903 m²) within a two year period; or
 - b. An addition when the existing building is already provided with automatic sprinklers; or
 - c. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

SECTION [F] 905.4 LOCATION OF CLASS I STANDPIPE HOSE CONNECTIONS - AMENDED

[F] 905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise approved by the fire code official. See Section 909.20.3.2 for additional provisions in smokeproof enclosures.
2. On each side of the wall adjacent to the exit opening of a horizontal exit

Exception: Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a nozzle attached to 100 feet (30 480 mm) of hose, as measured along the path of travel, a hose connection shall not be required at the horizontal exit.

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a hose connection located either on the roof or at the highest landing of a stairway with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.
6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations. The distance from a hose connection shall be measured along the path of travel.
7. The centerline of the 2.5 inches (64 mm) outlet shall be no less than 18 inches (457 mm) above and no more than 24 inches (610 mm) above the finished floor.
8. Every new building with any horizontal dimensions greater than 300 feet (91 440 mm) shall be provided with either access doors or a 2.5 inch (64 mm) outlets so that all portions of the building can be reached with 150 feet (45 720 mm) of hose from an access door or hose outlet. Required access doors shall be located in the exterior of the building and shall be accessible without the use of a ladder. The door dimensions shall be not less than 3 feet (914 mm) in width, and not less than 6 feet 8 inches (2032 mm) in height. These doors are for fire department access only.

SECTION [F] 907.2.13 High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access - AMENDED

[F] 907.2.13 High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access. High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access shall be provided with an automatic smoke detection in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412.

2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system.

SECTION [F] 907.5.2.2 Emergency voice/alarm communication system - AMENDED

[F] 907.5.2.2 Emergency voice/alarm communication system. Emergency voice/alarm communication system required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access, and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Section 1002.1.
5. Dwelling Units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-1 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

SECTION 907.6.3.2 High-rise buildings - AMENDED

907.6.3.2 High-rise buildings. High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler waterflow devices.

3. Manual fire alarm boxes
4. Other approved types of automatic detection devices or suppression systems.

SECTION [F] 910.3.2.2 Sprinkler buildings - AMENDED

[F] 910.3.2.2 Sprinkler buildings. Where installed in buildings provided with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at least 100° F above the operating temperature of the sprinkler, unless otherwise approved.

Table 1505.1 - AMENDED

TABLE 1505.1^a
MINIMUM ROOF COVERING CLASSIFICATIONS
TYPES OF CONSTRUCTION

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
A	A	A	A	A	A	A	A	A

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

a. Unless otherwise required in accordance with Chapter 7A.

SECTION 1505.1.3 Roof coverings within all other areas - AMENDED

1505.1.3 Roof coverings within all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.

SECTION 1505.5 NONCLASSIFIED ROOFING - DELETED

SECTION 1505.7 SPECIAL PURPOSE ROOFS - DELETED

SECTION 3109.2 DEFINITIONS - AMENDED

SWIMMING POOLS. Any structure intended for swimming, recreational bathing or wading that contains water over 18 inches deep. This includes in-ground, above-ground and on-ground pools; hot tubs; spas and fixed-in-place wading pools.

SECTION 3109.3 PUBLIC SWIMMING POOLS - AMENDED

3109.3 Public swimming pools. Public swimming pools shall be completely enclosed by a fence at least 5 feet in height or a screen enclosure. Openings in the fence shall not permit the passage of a 4-inch-diameter sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates.

SECTION 3109.4.1 BARRIER HEIGHT AND CLEARANCE - AMENDED

3109.4.1 Barrier height and clearances. The top of the barrier shall be at least 60 inches above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches measured on the side of the barrier that faces away from the swimming pool.

SECTION 3109.4.4.1 DEFINITIONS - ADDED

PRIVATE POOL is any constructed pool, permanent or portable, and over 18 inches deep which is intended for non-commercial use as swimming pool by not more than three owner families and their guests.

SECTION 3109.4.4.2 CONSTRUCTION PERMIT; SAFETY FEATURES REQUIRED - ITEM 3 IS DELETED

APPENDIX I ADOPTED.

Appendix I of the California Building Code is hereby adopted by reference in its entirety with no amendments."

SECTION 5.

A new Chapter 15.10 is hereby added to Title 15 of the Brea City Code to read as follows:

"CHAPTER 15.10: RESIDENTIAL CODE

Sections

- 15.10.010 2010 California Residential Code adopted
- 15.10.020 2010 California Residential Code- Amendments

§15.10.010 2010 CALIFORNIA RESIDENTIAL CODE ADOPTED.

"The '2010 California Residential Code', incorporating the 2009 International Residential Code; as published by the International Code Council, hereby is adopted in its entirety as the Residential Code of the City of Brea, together with the amendments, additions, deletions and exceptions set forth in this Chapter.

§15.08.020 CALIFORNIA RESIDENTIAL CODE - AMENDMENTS.

The California Residential Code is hereby amended as follows:

Table R301.2(1) is amended to read:

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	Speed ^d (mph)	Topographi c effects ^k		Weatherin g ^a	Frost line Depth ^b	Termit e ^c					
Zero	85	No	D ₂ or E	Negligible	12- 24"	Very Heavy	43	No	See Exhibit B	0	60

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

- a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.
- b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
- d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- e. Temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.
- f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
- g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of all currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.
- h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."
- i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99%) value on the National Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°)" at www.ncdc.noaa.gov/fpsf.html.
- j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.
- k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

Section R403.1.3 is modified by deleting the exception for masonry stem walls:

In Seismic Design Categories D₀, D₁ and D₂ masonry stem walls without solid grout and vertical reinforcing are not permitted.

Section R405.1 CONCRETE OR MASONRY FOUNDATIONS. EXCEPTION: DELETED

Section R902.1 is amended by revising it to allow only class A roofs as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class A roofing shall be installed in areas designated by this section. Classes A roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.

Section R902.1.3 is amended by revising it to require a minimum Class A roof as follows:

R902.1.3 Roof coverings within all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.

Section R902.2, first paragraph, is amended by revising it to allow only Class A treated wood roofs as follows:

R902.2 Fire-retardant-treated shingles and shakes. Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A roofs."

SECTION 6.

A new Chapter 15.12 is hereby added to Title 15 of the Brea City Code to read as follows:

"CHAPTER 15.12: ELECTRICAL CODE

Sections

- 15.12.010 California Electrical Code adopted
- 15.12.020 California Electrical Code – Amendments

§15.12.010 CALIFORNIA ELECTRICAL CODE ADOPTED.

Except as provided in this chapter, the '2010 California Electrical Code', based on the 2008 National Electrical Code as published by the National Fire Protection Association, is hereby adopted in its entirety as the Electrical Code of the City of Brea, regulating and controlling the installation, arrangement, alteration, repair, use and other operation of electrical wiring, connections, fixtures and other electrical appliances on premises within the City.

§15.12.020 CALIFORNIA ELECTRICAL CODE - AMENDMENTS.

[Reserved for future amendments]"

SECTION 7.

A new Chapter 15.16 is hereby added to Title 15 of the Brea City Code to read as follows:

"CHAPTER 15.16: MECHANICAL CODE

Sections

- 15.16.010 California Mechanical Code adopted
- 15.16.020 California Mechanical Code – Amendments

§15.16.010 CALIFORNIA MECHANICAL CODE ADOPTED.

Except as provided in this chapter, the '2010 California Mechanical Code', based on the 2009 Uniform Mechanical Code as published by the IAPMO, is hereby adopted in its entirety as the Mechanical Code of the City of Brea, regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance of heating, ventilating, cooling, refrigeration systems, incinerators and other miscellaneous heat producing appliances.

§15.16.020 CALIFORNIA MECHANICAL CODE – AMENDMENTS.

[Reserved for future amendments.]"

SECTION 8.

A new Chapter 15.20 is hereby added to Title 15 of the Brea City Code to read as follows:

"CHAPTER 15.20: PLUMBING CODE

Sections

- 15.20.010 California Plumbing Code adopted
- 15.20.020 California Plumbing Code- Amendments

§15.20.010 CALIFORNIA PLUMBING CODE ADOPTED.

Except as provided in this chapter, the '2010 California Plumbing Code', based on the 2009 Uniform Plumbing Code as published by IAPMO, is hereby adopted in its entirety as the Plumbing Code of the City of Brea, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of plumbing systems within the City.

§15.20.020 CALIFORNIA PLUMBING CODE - AMENDMENTS.

[Reserved for future amendments.]”

SECTION 9.

A new Chapter 15.24 is hereby added to Title 15 of the Brea City Code to read as follows:

“CHAPTER 15.24: GREEN BUILDING STANDARDS CODE

Sections

- 15.24.010 California Green Building Standards Code adopted
- 15.24.020 California Green Building Standards Code - Amendments

§15.24.010 CALIFORNIA GREEN BUILDING STANDARDS CODE ADOPTED.

Except as provided in this chapter, the '2010 California Green Building Standards Code', is hereby adopted in its entirety and shall be and become the Green Building Standards Code of the City of Brea.

§15.24.020 CALIFORNIA GREEN BUILDING STANDARDS CODE - AMENDMENTS.

The California Green Building Standards Code is amended as follows:

Section 202 is amended to read as follows:

Sustainability. Consideration of present development and construction impacts on the community, the economy, and the environment without compromising the needs of the future.

Section 4.301.1 is amended to read as follows:

Irrigation controllers. Automatic irrigation system controllers for landscaping provided and installed at the time of final inspection and shall comply with the following:

1. Controllers shall be weather- or soil moisture-based irrigation controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s).

Soil moisture-based controllers are not required to have rain sensor input.”

SECTION 10.

A new Chapter 15.28 is hereby added to Title 15 of the Brea City Code to read as follows:

“CHAPTER 15.28: ENERGY CODE

Sections

- 15.28.010 California Energy Code adopted
- 15.28.020 California Energy Code - Amendments

§15.28.010 CALIFORNIA ENERGY CODE ADOPTED.

Except as provided in this chapter, the ‘2010 California Energy Code’, is hereby adopted in its entirety and shall be and become the Energy Code of the City of Brea, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of energy systems.

§15.28.020 CALIFORNIA ENERGY CODE - AMENDMENTS.

[Reserved for future amendments.]”

SECTION 11.

A new Chapter 15.30 is hereby added to Title 15 of the Brea City Code to read as follows:

“CHAPTER 15.30: GRADING AND EXCAVATION CODE

Sections

- 15.30.010 Orange County Grading and Excavation Code adopted
- 15.30.020 Orange County Grading and Excavation Code - Amendments

§15.30.010 ORANGE COUNTY GRADING AND EXCAVATION CODE ADOPTED.

Except as provided in this chapter, the ‘Orange County Grading and Excavation Code’, is hereby adopted in its entirety and shall be and become the Grading and Excavation Code of the City of Brea, regulating grading and excavation of sites.

§15.30.020 ORANGE COUNTY GRADING AND EXCAVATION CODE - AMENDMENTS

[Reserved for future amendments.]”

SECTION 12.

A new Chapter 15.34 is hereby added to Title 15 of the Brea City Code to read as follows:

“CHAPTER 15.34: HISTORICAL BUILDING CODE

Sections

- 15.34.010 2010 California Historical Building Code adopted
- 15.34.020 California Historical Building Code - Amendments

§15.34.010 CALIFORNIA HISTORICAL BUILDING CODE ADOPTED.

Except as provided in this chapter, the ‘2010 California Historical Building Code’, is hereby adopted in its entirety and shall be and become the Historical Building Code of the City of Brea, regulating for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties.

§15.34.020 CALIFORNIA HISTORICAL BUILDING CODE- AMENDMENTS.

[Reserved for future amendments.]”

SECTION 13.

A new Chapter 15.36 is hereby added to Title 15 of the Brea City Code to read as follows:

“CHAPTER 15.36: EXISTING BUILDING CODE

Sections

- 15.36.010 2010 California Existing Building Code adopted
- 15.36.020 California Existing Building Code - Amendments

“§15.36.010 CALIFORNIA EXISTING BUILDING CODE ADOPTED.

Except as provided in this chapter, the ‘2010 California Existing Building Code’, is hereby adopted in its entirety and shall be and become the Existing Building Code of the City of Brea, regulating the alteration, repair, addition and change of occupancy of existing structures.

§15.36.020 AMENDMENTS TO THE EXISTING BUILDING CODE.

[Reserved for future amendments.]”

SECTION 14. PENALTIES.

It shall be unlawful for any person, firm, partnership, or corporation to violate any provision or to fail to comply with any of the requirements of this Ordinance or any of the Codes hereby adopted. Unless deemed to be an infraction, any person, firm,

partnership or corporation violating any provision of this Ordinance or any of the Codes hereby adopted or failing to comply with any of their requirements shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding one thousand dollars (\$1,000.00), or by imprisonment not exceeding six (6) months, or by both such fine and imprisonment. Each and every person, firm, partnership, or corporation shall be deemed guilty of a separate offense for each and every day or any portion thereof during which any violation of any of the provisions of this Ordinance or the Codes hereby adopted is committed, continued or permitted by such person, firm, partnership or corporation, and shall be deemed punishable therefore as provided in this Ordinance.

SECTION 15. CIVIL REMEDIES.

The violation of any of the provisions of this Ordinance or any of the Codes hereby adopted shall constitute a nuisance and may be abated by the City through civil process by means of restraining order, preliminary or permanent injunction or in any other manner provided by law for the abatement of such nuisances.

SECTION 16. SEVERABILITY.

The City Council declares that, should any provision, section, paragraph, sentence or word of this Ordinance or the Codes hereby adopted be rendered or declared invalid by any final court action in a court of competent jurisdiction, or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences and words of this Ordinance and the Codes hereby adopted shall remain in full force and effect.

SECTION 17. The City Clerk shall certify to the adoption of this Ordinance.

APPROVED AND ADOPTED this 18th day of January, 2011.



Mayor

I, Lucinda Williams, City Clerk of the City of Brea, do hereby certify that the foregoing Ordinance was introduced at a regular meeting of the City Council of the City of Brea held on the 16th day of November, 2010 and was finally passed at a regular meeting of the City Council of the City of Brea held on the 18th day of January, 2011 by the following vote:

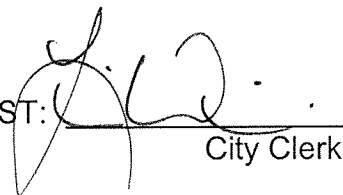
AYES: COUNCIL MEMBER: Garcia, Murdock, Simonoff, Schweitzer, Moore

NOES: COUNCIL MEMBER: None

ABSENT: COUNCIL MEMBER: None

ABSTAIN: COUNCIL MEMBER: None

ATTEST:



City Clerk

DATE:

January 24, 2011

RESOLUTION NO. 2010-99

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BREA SETTING FORTH FINDINGS FOR REQUIRED AMENDMENTS TO THE 2010 CALIFORNIA CODES RELATIVE TO LOCAL CLIMATIC, TOPOGRAPHIC AND GEOLOGIC CONDITIONS

The City Council of the City of Brea hereby finds and resolves as follows:

SECTION 1.

(i) Health and Safety Code Section 17958 provides that the City of *Brea* shall adopt Ordinances and regulations imposing the same or modified or changed requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922; and

(ii) The State of California is mandated by Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the California Building Code, the California Green Building Standards Code, the California Residential Code, the California Plumbing Code, the California Mechanical Code, and the California Electrical Code (hereinafter referred to collectively as "Codes"); and

(iii) Health and Safety Code Section 17958.5(a) permits the City to make modifications or changes to the Codes, which are reasonably necessary because of local climatic, geologic, or topographic conditions; and

(iv) Health and Safety Code Section 17958.7 requires that the City Council, before making any modifications or changes to the Codes, shall make an express finding that such changes or modifications are reasonably necessary because of local climatic, geologic, or topographic conditions; and

(v) The Community Development Department has recommended that changes and modifications be made to the Codes and have advised that certain said changes and modifications to the California Codes are reasonably necessary due to local conditions in the City of *Brea* and have further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Codes or are reasonably necessary to safeguard life and property within the City of Brea.

Amendments related to life and fire safety contained in Sections 403, 403.1, 403.1.1, 403.4.7.2, 403.4.8.1, 412.7, Table 1505.1, and 1505.1.3 of the 2010 Edition of the California Building Code, and Sections R403.1.3, R405.1, R902.1, R902.1.3, and R902.2 of the 2010 Edition of the California Residential Code, and Sections 202 and 4.304.1 of the 2010 Edition of the California Green Building Standards Code as recommended by the *Community Development* Department are hereby found to be reasonably necessary due to the following local conditions:

1. Climatic Conditions

a. Hot, dry Santa Ana winds are common to all areas within the City of *Brea* and Orange County in general. These winds, which can cause small fires to spread quickly, are a contributing factor to the high fire danger in the area, and create the need for an increased level of fire protection. This added protection will supplement normal fire department response available and provide immediate protection for life and safety of multiple occupants during fire occurrences.

b. Orange County and the City of *Brea* are located in a semi-arid Mediterranean type climate which predisposes all fuels, including wood shingles, to rapid ignition and spread of fire. Therefore, there exists a need for additional fire protection measures.

2. Geologic Conditions

a. Orange County and the City of *Brea* are located in a highly active seismic area. There are earthquake faults that run along both the northeastern and southwestern boundaries of Orange County. The

Newport-Inglewood Fault Zone (NIFZ) which runs through Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude, hypocenter off Newport Beach coast), which took 120 lives, with areas damaged from Laguna Beach to Marina del Rey and inland to Whittier, and poses one of the greatest hazards to lives and property in the nation. Regional planning for reoccurrence is recommended by the State of California, Department of Conservation. There was also an earthquake in December 1989, with the epicenter located near the City of Irvine. The fault on which this quake occurred was unknown prior to this activity. The October 17, 1989, Santa Cruz earthquake resulted in only one major San Francisco fire in the Marina district, but when combined with the 34 other fires and over 500 responses, the department was taxed to its full capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. If more fires had been ignited by the earthquake, it would have been difficult for the fire department to contain them. Experts predict a major earthquake in our area within the next 50 years. This situation creates the need for both additional fire protection measures and automatic on-site fire protection for building occupants since a multitude of fires may result from breakage of gas and electric lines as a result of an earthquake. As noted by "Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, 1988, State Department of Conservation," page 59, "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe";

b. Traffic and circulation congestion presently existing in the City of Brea often places fire department response time to fire occurrences at risk. This condition will be exacerbated by any major disaster, including any earthquake wherein damage to the highway system will occur. This condition makes the need for additional on-site protection for property occupants necessary.

c. Placement of multiple occupancy buildings, location of arterial roads, and fire department staffing constraints due to recent revenue-limiting state legislation have made it difficult for the fire department to locate additional fire stations and provide manpower sufficient to concentrate fire companies and personnel to control fires in high density apartment or condominium buildings. Fire Department equipment does not allow easy access to areas of buildings greater than 55 feet above the level of Fire Department vehicle access. These conditions create the need for built-in on-site fire protection systems to protect occupants and property until fire fighting apparatus and personnel arrive on the scene.

The City of Brea is located in an area subject to a climatic condition of high winds and low humidity. This combination of events creates an environment, which is conducive to rapidly spreading fires. Control of such fires requires rapid response. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response

time to reach an incident scene. Additionally, Section 6, Figure 6-2 of ASCE 7 identifies a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

The City of *Brea* is located in the middle of the seismically active area. The viability of the public water system would be questionable at best after a major seismic event. This would leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors.

d. Untreated wood roofs cause or contribute to serious fire hazard and to the rapid spread of fires when such fires are accompanied by high winds. Pieces of burning wooden roofs become flying brands and are carried by the wind to other locations and thereby spread fire quickly. Recent Grand Jury Report findings support this concern.

Additional amendments have been made to Codes. On the recommendation of the Community Development Department, such amendments are hereby found to be either administrative or procedural in nature or concern themselves with subjects not covered in such Codes. The changes made include provisions making each of said Codes compatible with other Codes enforced by the City.

SECTION 2.

Amendments to the 2010 Edition of the California Codes are found reasonably necessary based on the climatic and/or geologic conditions cited in Section 1 of this resolution and are listed as follows:

<u>Code Section</u>	<u>Findings in Section 1</u>
CBC 403, 403.1, 403.4.7.2, 403.4.8.1, 907.2.13, 907.6.3.2	A-1, B-2, B-3
CBC 412.1, 412.2, 412.7	B-1, B-2, B-3
CBC 701A.3, 701A.3.2, 701A.5	A-1, A-2, B-2
CBC 903.2, 903.2.8	A-1, A-2, B-2

CBC 3109.3, 3109.4.1, 3109.4.4.1

B-2

CBC 1505, CRC R902.1

A-1, A-2, B-2, B-4

CRC R403.1.3, R405.1

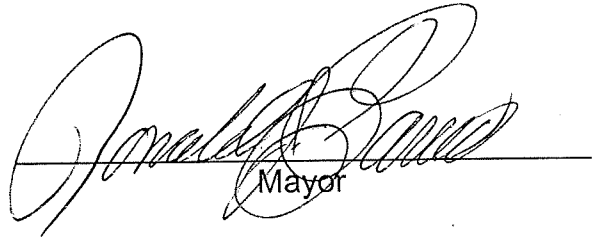
B-1

The aforementioned amendments have been incorporated in detail in Ordinance No. 1146.

SECTION 3.

The Community Development Department shall file copies of Resolution 2010-99 and Ordinance 1146 with the California Building Standards Commission as required by Health and Safety Code Section 17958.7.

APPROVED AND ADOPTED this 16th day of November, 2010.



Mayor


I, Lucinda Williams, City Clerk of the City of Brea, do hereby certify that the foregoing Resolution was adopted at a regular meeting of the City Council of the City of Brea held on the 16th day of November, 2010 by the following vote:

AYES: COUNCIL MEMBER: Beauman, Schweitzer, Simonoff, Moore, Garcia

NOES: COUNCIL MEMBER: None

ABSENT: COUNCIL MEMBER: None

ABSTAIN: COUNCIL MEMBER: None

ATTEST: 
City Clerk

RESOLUTION NO. 2010-104

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BREA SETTING FORTH FINDINGS FOR REQUIRED AMENDMENTS TO THE 2010 CALIFORNIA FIRE CODE RELATIVE TO LOCAL CLIMATIC, TOPOGRAPHIC AND GEOLOGIC CONDITIONS

The City Council of the City of Brea hereby finds and resolves as follows:

SECTION 1.

(i) Health and Safety Code Section 17958 provides that the City of Brea shall adopt Ordinances and regulations imposing the same or modified or changed requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922; and

(ii) The State of California is mandated by Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the California Fire Code (hereinafter referred to as the "Fire Code"); and

(iii) Health and Safety Code Section 17958.5(a) permits the City to make modifications or changes to the Fire Code, which are reasonably necessary because of local climatic, geologic, or topographic conditions; and

(iv) Health and Safety Code Section 17958.7 requires that the City Council, before making any modifications or changes to the Fire Code, shall make an express finding that such changes or modifications are reasonably necessary because of local climatic, geologic, or topographic conditions; and

(v) The Fire Department has recommended that changes and modifications be made to the Fire Code and have advised that certain said changes and

modifications to the California Fire Code are reasonably necessary due to local conditions in the City of Brea and have further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Fire Code or are reasonably necessary to safeguard life and property within the City of Brea.

Amendments related to life and fire safety contained in the 2010 edition of the California Fire Code as recommended by the Fire Department are hereby found to be reasonably necessary due to the following local conditions:

I. Climatic Conditions

- A. The City of Brea is located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services throughout Brea. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.
- B. The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Brea Fire Department's ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within Brea.
- C. Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly 10 million over the next quarter of a century with 50 percent of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled

fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.

- D. These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in high-density housing or vegetation. These fires spread very quickly and create a need for increased levels of fire protection. The added protection of fire sprinkler systems and other fire protection features will supplement normal fire department response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. Fire sprinkler systems will also reduce the use of water for firefighting by as much as 50 to 75 percent.

II. Topographical conditions

- A. Natural slopes of 15 percent or greater generally occur throughout the foothills of Brea. The elevation change caused by the hills creates the geological foundation on which communities within Brea are built, and will continue to build. With much of the populated flatlands already built upon, future growth will occur on steeper slopes and greater constraints in terrain.
- B. Traffic and circulation congestion is an artificially created, obstructive topographical condition, which is common throughout Brea.
- C. These topographical conditions combine to create a situation, which places fire department response time to fire occurrences at risk, and makes it necessary to provide automatic on-site fire-extinguishing systems and other protection measures to protect occupants and property.

III. Geological Conditions

The City of Brea is becoming a more densely populated area that has buildings constructed over and near faults that are believed to be capable of producing future earthquakes similar or greater in size to the 1994 Northridge and the 1971 Sylmar earthquakes. Earthquake faults run along the foothills of Brea.

- A. Previous earthquakes have been accompanied by disruption of traffic flow and fires. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors of buildings. The October 17, 1989, Santa Cruz earthquake resulted in one major fire in the Marina District (San Francisco). When combined with the 34 other fires locally and over 500 responses, the department was taxed to its fullest

capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. This situation creates the need for both additional fire protection and automatic on-site fire protection for building occupants. State Department of Conservation noted in its 1988 report (Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, page 59), "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe."

- B. Road circulation features located throughout Brea also make amendments reasonably necessary. Located through the City of Brea are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanied with occasional heavy rainfall, causes roadway flooding and landslides and at times may make an emergency access route impassable.
- C. Soils throughout the County possess corrosive properties that reduce the expected usable life of water services when metallic pipes in contact with soils are utilized.
- D. Portions of Brea contain active or former oil production fields. These areas contain a variety of naturally occurring gasses, liquids and vapors. These compounds present toxicity or flammability hazards to building occupants. Evaluation of these hazards and the risks they pose to development is necessary to implement appropriate mitigation.

Due to the topographical conditions of sprawling development separated by waterways and narrow and congested streets and the expected infrastructure damage inherent in seismic zone described above, it is prudent to rely on automatic fire sprinkler systems to mitigate extended fire department response time and keep fires manageable with reduced fire flow requirements for a given structure. Additional fire protection is also justified to match the current resources of firefighting equipment and personnel within the City of Brea.

SECTION 2.

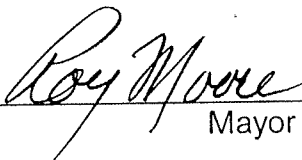
Amendments to the 2010 Edition of the California Fire Code are found reasonably necessary based on the climatic, topographic, and/or geologic conditions cited in Section 1 of this resolution and are listed in Attachment A.

The aforementioned amendments have been incorporated in detail in Ordinance No. 1147

SECTION 3.

The Fire Department shall file copies of Resolution 2010-104 and Ordinance 1147 with the California Building Standards Commission as required by Health and Safety Code Section 17958.7.

APPROVED AND ADOPTED this 21st day of December, 2010.



Mayor

I, Lucinda Williams, City Clerk of the City of Brea, do hereby certify that the foregoing Resolution was adopted at a regular meeting of the City Council of the City of Brea held on the 21st day of December, 2010 by the following vote:

AYES: COUNCIL MEMBER: Garcia, Murdock, Simonoff, Schweitzer, Moore

NOES: COUNCIL MEMBER: None

ABSENT: COUNCIL MEMBER: None

ABSTAIN: COUNCIL MEMBER: None

ATTEST: 

City Clerk

Matrix of Brea Fire Code Amendment Findings

CODE SECTION	TITLE	ACTION	FINDINGS I,II,III	RISK
1 101.1	Title	Revised	Admin	
2 104.3.1	Authority to inspect	Added	Admin	
3 105.6.15	Fire hydrants and valves	Deleted	Admin	
4 105.6.19	Fumigation and thermal insecticides	Deleted	Admin	
5 105.6.47	Additional permits (Cut Christmas Trees, General Use Permit, Oil and Natural Gas Wells, Recreational Fires, Rifle Range, Residential Based Care Facilities)	Revised/Added to	Admin	
6 105.8	Responsibility of Permittee	Added	Admin	
7 107.6.1	Occupant count	Added	Admin	
8 111.4	Failure to comply	Revised	Admin	
9 202	General definitions (Flow-Line, Hazardous Fire Area, High Rise Building, Jurisdictional Area, Rifle Range, Vehicle Fueling Appliance)	Revised/Added to	Admin	
10 304.1.2(7)(E)	Brea vegetation management guideline	Revised/Added to	I & II	Wildland fires are Brea's highest risk and have resulted in the greatest property loss when compared against all other types of fires. The amendments support Brea's wildland fire risk reduction objective. These regulations are used to either reduce the probability of wildfire ignition or prevent structure ignition and the resulting damage.
11 305.5	Chimney spark arrestors	Added	I & II	
12 307.1.1.1	Open burning	Added	I & II	
13 307.3	Extinguishment authority	Revised	I & II	
14 307.4.2	Recreational fires	Revised	I & II	
15 307.4.2.1	Recreational fires in the wildland	Added	I & II	
16 307.6	Incinerators and fireplaces	Added	I & II	
17 308.1.6	Open flame devices	Revised	I & II	
18 308.1.6.1	Signals and Markers	Revised	I & II	
19 318	Christmas tree retail sales	Added	I & II	
20 319	Projectile firing	Added	I & II	
21 320	Development on or near land containing or emitting toxic, combustible or flammable liquids,	Added	III	In parts of Brea, lands actively produce oil and gas. Methane gas

ATTACHMENT A

		gases or vapors				is flammable and emanates from the ground and creates an explosion risk when confined within structures. Data shows natural concentrations are sufficient to support an explosion. The amendment minimizes the risk by preventing gas from entering the structures.
22	321	Fuel modification requirements for new construction	Added	I & II		<i>Wildland fires are Orange County's highest risk and have resulted in the greatest property loss when compared against all other types of fires. The amendments support OCFA's wildland fire risk reduction objective. These regulations are used to either reduce the probability of wildfire ignition or prevent structure ignition and the resulting damage.</i>
23	322	Clearance of brush or vegetation growth from roadways	Added	I & II		
24	323	Unusual circumstances	Added	I & II		
25	324	Use of equipment	Added	I & II		
26	324.1	Spark arrestors	Added	I & II		
27	325	Restricted entry	Added	I & II		
28	326	Trespassing on posted property	Added	I & II		
29	401;402;403;407	Emergency Planning	Only Sections mandated by State adopted	Admin		
30	503.2.1	Dimensions (Fire Lanes)	Revised	II		<i>Data shows that improved response times significantly contribute to reducing death, injury, and property loss. The amendments support the Brea City Council's objective to achieve response times.</i>
31	503.2.3	Surface	Revised	II		
32	503.2.4	Turning radius	Revised	II		
33	503.3.5	Dead ends	Revised	II		
34	503.2.7	Grade	Revised	II		
35	503.3	Markings	Revised	II		
36	503.4	Obstructions of fire apparatus access roads	Revised	II		
37	503.6	Security gates (Blocking FD Access)	Revised	II		
38	503.7	Apparatus access to the fire hazard severity zones	Added	I & II		
39	505.1	Address identification	Revised	II		

ATTACHMENT A

40	506.1	Where required		Revised	N/A	
41	507.5	Fire hydrant systems		Revised	I & II	
42	507.5.1	Where required		Revised	I & II	
43	507.5.3	Private fire service mains, hydrants and water tanks		Revised	I & II	
44	510.1.1	Emergency responder radio coverage in buildings		New for clarity	Admin	Effective communication during emergency incidents is a critical component of effective firefighting and firefighter safety. Some types of construction and building configuration interfere with radio signals. This amendment recognizes that the OCSD has created a local model that uniformly addresses these issues and effectively address building radio signal interference.
45	510.2	Radio signal strength		Deleted	N/A	
46	606.8	Refrigerant detector		Revised for clarity and consistency with CMC	Admin	
47	606.10.1.2	Manual operation (Emergency Controls)		Revised for clarity and consistency with CMC	Admin	

ATTACHMENT A

48	608.1	Scope (Battery Systems)	Revised for clarity	Admin	Hazardous materials hazards are addressed broadly in the fire code. In this case, the broad requirements over regulate charging of battery powered golf carts. Battery charging risks include violent explosions due to the potential release of flammable gases in locations where ignition sources are present. OCFA has no local data of this occurring but national statistics show the potential is real. The amendment addresses the hazard posed by the charging of electric carts, while eliminating other requirements that will not impact the risk. This approach is equally effective but also less costly and to business.
49	608.10	Indoor charging of electric carts/cars	Added	III	The SFM recognized a significant risk to fire fighter safety posed by the installation of PV panels on roofs and published a guideline that outlined safety features which were incorporated into OC Fire Chiefs Guidelines. These requirements are being included in the 2012 IFC.
50	610	Photovoltaic System	New	III	
51	704.1	Enclosure	Revised	Admin	
52	903.2	Where required (Sprinklers)	Revised	III	According to NFPA Report on damage loss to commercial structures, fire sprinklers reduce

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					property damage between 53 and 70 percent.
53	903.2.1	Group R (Sprinklers)	Revised	I & III	<i>NFPA reported in 2009 that 27% of all reported fires were residential fires and that 85% of all civilian fire deaths occurred as a result of residential fires. The amendments provide reasonable thresholds for the application of residential fire sprinklers within new homes and those undergoing major expansion or remodel.</i>
	903.3.1.1.1	Exempt locations (Sprinklers)	Revised	III	Fire suppression and notification systems are an integral part of the buildings fire life safety systems. These amendments strengthen the reliability and notification, reducing the probability of system failure or delayed notification.
	904.10.4	Clean-agent systems	Added	III	
	905.4	Location of Class I standpipe hose connections	Revised	III	The placement of standpipe outlets can interfere with the egress path this amendment minimizes that risk. Decrease trip hazard/blocking of exit
	907.2.13	High-rise buildings (Alarm Systems)	Revised	Admin	
	907.3.1	Occupancy requirements	Revised	Admin	
	907.4.1	Duct smoke detectors	Revised	III	Duct smoke detectors have a 60% false alarm rate. Numerous false alarms create an environment of complacency where people don't

ATTACHMENT A

					react to fire alarms, increasing the risk of injury or death. The amendment reduces the likelihood of false alarms.
907.6.2.2		Emergency voice/alarm communication system	Revised	III	Early notification of a fire in a high-rise and the ability of firefighters to communicate with the occupants are key in reducing the number of injuries and death. Sound proofing in residential type high-rises makes it difficult for the sound of the paging system to penetrate the living areas, which could result in delayed notification to evacuate.
907.7.3.2		High-rise buildings	Revised	Admin	
910.3.2.2		Sprinklered buildings (Vent heat-responsive device)	Revised	Admin	
1102.1		Definitions (Emergency Helicopter Landing Facility)	Added	Admin	Heavy vehicle traffic and/or seismic event may make it difficult for all the required FD resources to respond. This amendment gives additional capability for both firefighting operations and egress.
1108.1.1 thru 1108.1.11		Emergency Helicopter Landing Facility	Existing	II & III	
1410.1.1		Required access	Added	I, II, III	<i>Data shows that improved response times significantly contribute to reducing death, injury, and property loss. The amendments support the Brea City Council's objective to achieve response times.</i>

ATTACHMENT A

1908.1	General (Combustible organic storage)	Revised	I & II	These operations are typically located within rural or wildland urban interface areas. Wildland fires are Brea's highest risk and have resulted in the greatest property loss when compared against all other types of fires. Because of their typical location the FD response times are usually delayed and the intensity of the intensity of the fire a heavy resource is required. The amendments support Brea Fire Department's wildland fire risk reduction objective. These regulations are used to either reduce the probability of wildfire ignition and the resulting damage as well as reduces the amount of resources need to fight the fire.
1908.2	Storage site	Revised	I & II	
1908.3	Size of piles	Revised	I & II	
1908.7	Pile fire protection	Revised	I & II	
1908.9	Material-handling equipment	Revised	I & II	
2308.3	Flue spaces (High piled storage)	Revised	III	Full scale fire testing by Factory Mutual has shown that maintaining flue spaces is critical in reducing the impact of fires in high piled storage arrangements.
Table 2308.3	Required flue spaces for rack storage	Revised	III	Illegal fireworks caused 2.3 million dollars worth damage and 1.2 million dollars in emergency services over a five year period. The amendment implements city councils direction in prohibiting Safe & Sane fireworks in all but two jurisdictions.
3308.2	Firework displays	Revised	Admin	
3310	Retail fireworks	Added	Admin	
3311	Seizure of fireworks	Added	Admin	
3704.2.2.7	Treatment system (Exception)	Revised	III	

ATTACHMENT A

Chapter 47	Reference Standards	Existing	Admin, II & III	Fire suppression and notification systems are an integral part of the buildings fire life safety systems. These amendments strengthen the reliability and notification, reducing the probability of system failure or delayed notification.
	2010 NFPA 13 (Sprinkler Systems)	Existing	Admin, II & III	
	2010 NFPA 13-R (Multi-Family Residential Sprinkler Systems)	Existing	II & III	
	2010 NFPA 13-D (Single Family Residential Sprinkler Systems)	Existing	II & III	
	2007 NFPA 14 (Standpipe Systems)	Existing	II & III	
	2010 NFPA 24 (Underground Water Supply Systems)	Existing	II & III	
	2010 NFPA 72 (Fire Alarm Systems)	Existing	Admin & II	
4908	Fuel modification requirements for new construction	Added	I & II	<p><i>Wildland fires are Brea's highest risk and have resulted in the greatest property loss when compared against all other types of fires.</i></p> <p><i>The amendments support Brea Fire Department's wildland fire risk reduction objective. These regulations are used to reduce the probability of wildfires and their resulting damage.</i></p>